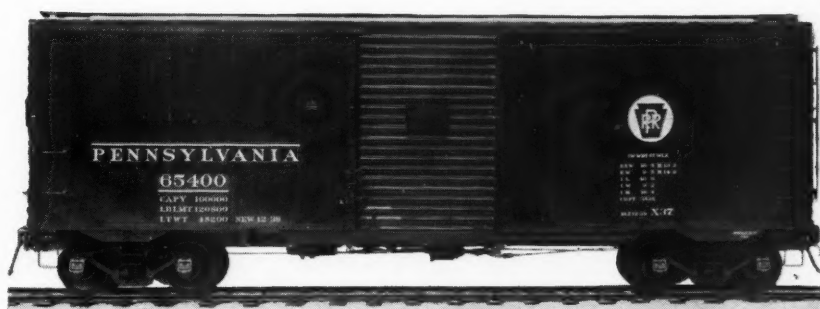


AUGUST 31, 1940

Railway Age

Founded in 1856

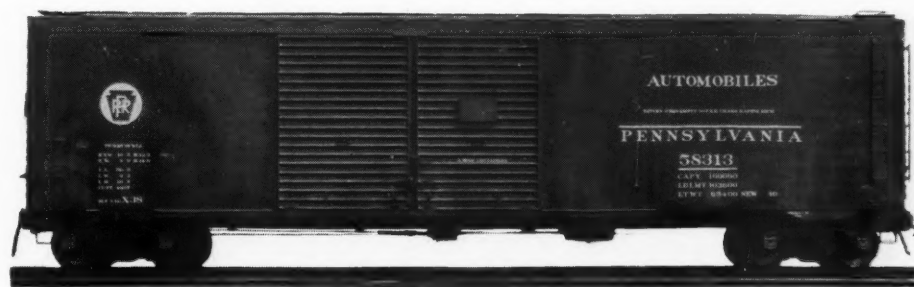
YOUNGSTOWN STEEL DOORS Camel Roller Lift Fixtures Applied to



50-Tons 40'6" All-Steel Box Cars—7'0" Door Opening



50-Tons 40'6" All-Steel Auto Cars—12'6" Door Opening



50-Tons 50'6" All-Steel Auto Cars—14'6" Door Opening

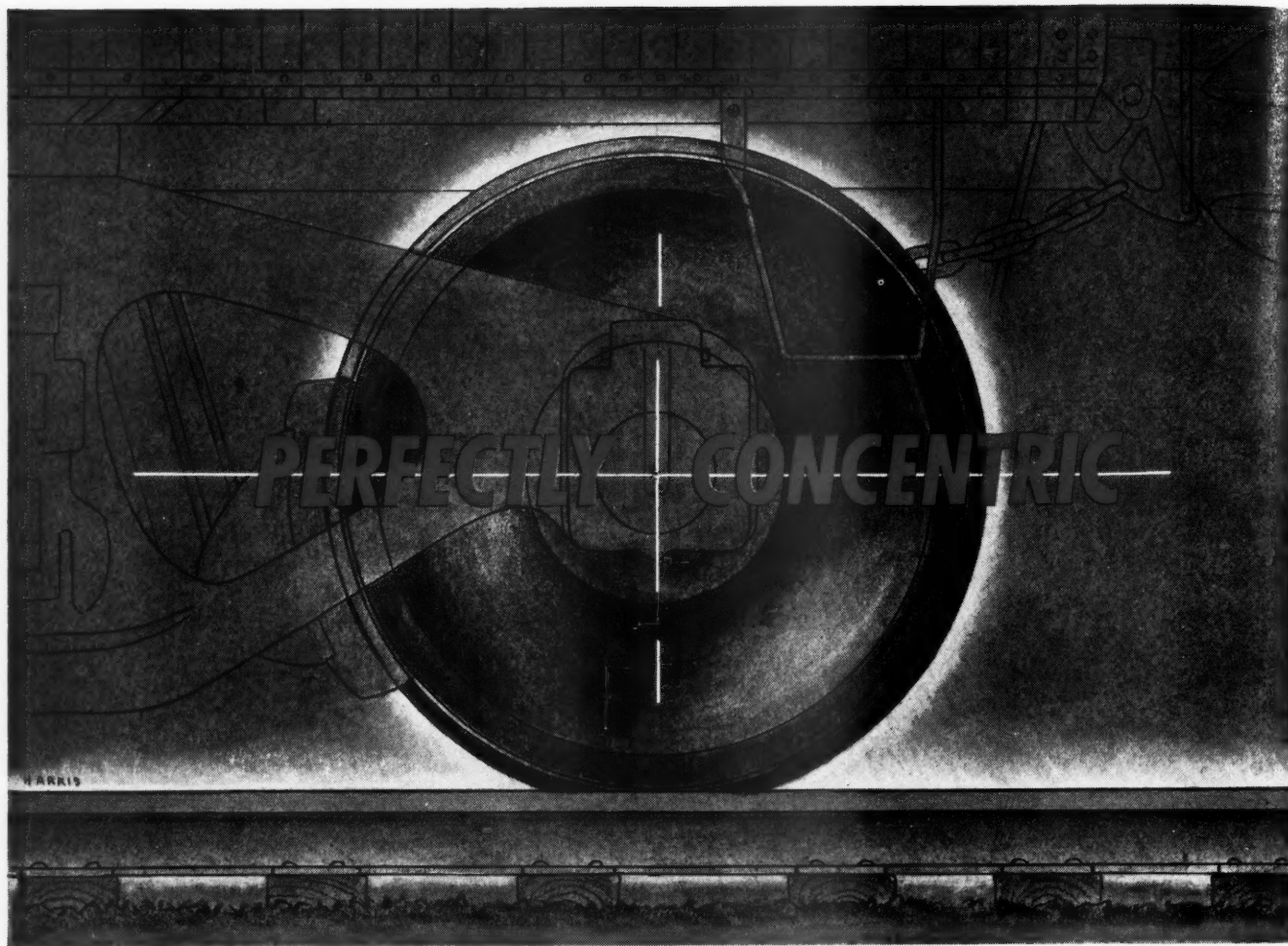
YOUNGSTOWN STEEL DOOR COMPANY

Cleveland

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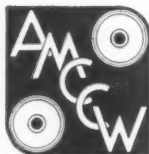
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Our Country's Economic Unpreparedness and Its Causes

The greatest menace confronting the American people is not the danger of war. The greatest menace consists of the economic policies and conditions now prevailing in this country, and the **apparent widespread ignorance and indifference of the people regarding them.** The danger of war is very real and serious. Having read Hitler's own writings, we have no doubt that he and the German people have started on a career of world conquest, and that if they defeat Great Britain it will not be long thereafter until they will attack the United States if they believe they can win. This country could, however, within a comparatively short time be put in a condition of economic and military preparedness that would enable it to defy and defeat any attack, economic, military or both, that might be made upon it by any other nation or combination of nations.

True Preparedness Impossible Under New Deal Policies

The important question is not whether it **could** be put in such a condition of economic and military preparedness, but whether it **will** be; and it never will or can be as long as present government policies prevail. These policies have the fatal weakness of ignoring (1) that the nation is not economically prepared, (2) what is necessary to make it economically prepared, and (3) that it cannot be made militarily prepared unless it is made economically prepared.

The leadership and people of France ignored the fact that economic preparedness is an essential part of military preparedness until it was too late. The leadership of Germany fully recognized this fact, and proceeded accordingly throughout the seven years of Nazi military preparations. Can't any of our New Deal statesmen read? They ought to be able to, as most of them went to high-brow colleges. If they can read, why do they continue preaching the danger of war, the necessity of military preparedness, and at the same time ignore the lessons taught by a large mass of current literature showing what was done in Germany, on the one hand, and in the countries she has crushed, on the other hand, before the present war began? Germany's

rapid successes, as every reader of the literature on the subject knows, have been due quite as much to her economic as to her military preparations.

What, then, is the status of economic preparedness in this country? In other words, how has business been, how is it now, and what are its prospects?—for, after all, business is simply production, construction and distribution and no country can be in a condition of economic preparedness in which production, construction and distribution have long been, still are and threaten to continue, abnormally small. One answer to the question as to how business in this country is now is that four years have passed since Mr. Roosevelt was re-elected in 1936, and that the total amount of business done in the country in the first eight months of 1940 was almost exactly the same as in 1936. This significant statement is supported by all the available evidence. Railroad freight loadings, the best single measure of total production and commerce, were just one-half of one per cent larger in the first eight months of 1940 than in 1936, and, in spite of large war orders from abroad, industrial production was only a little larger.

"Better Business" Was New Deal Argument in '36

Was business so good, then, in 1936 that it is evidence of prosperity and economic preparedness for its total volume to have been almost exactly the same in the first two-thirds of 1936 and in the first two-thirds of 1940, four years later? In 1936, by contending that his administration should be retained in power because under it business had become much better than it was under the administration of his predecessor four years before, Mr. Roosevelt conceded that one important test which should be applied to a federal administration is the trend and condition of business under it; and this was the most effective argument made in 1936 for the retention of the New Deal administration. First, then, just how good really was business in 1936 as measured by previous standards, and, second, how good is it in 1940 measured by the fact that its total volume has been and still is almost exactly as large as in 1936?

In 1936 the country's total population was about 10 million larger than it averaged in the five years 1925-

1929, inclusive. In spite of this increase of population, its industrial production (principally manufacturing and mining) was 4 per cent less in 1936 than it averaged in 1925-1929; expenditures for **private** construction were 70 per cent less than they averaged in those years; expenditures for **total** construction (including governmental) were 56 per cent less; railroad freight car loadings were 30 per cent less; the total income of the people was 13 per cent less; and their income per capita was 20 per cent less.

What the facts show is that business in 1936 was good as measured only by its condition in the immediately preceding five years, and bad as compared with its condition in every previous year for seventy years—i. e., since the depression of the '70's. Four years have elapsed since 1936. The country's population has increased about another 4 million since then. It always was normal before this depression for business **per capita** to increase in any period of four years. As the country's total volume of business thus far in 1940 has been only as large as in 1936, it necessarily follows that its business **per capita** has been smaller than in 1936—when, as already shown, it was relatively the smallest in seventy years excepting in the immediately preceding five years. And how was business

What is the cause of this persistent continuance of poor business? We answer, as we have repeatedly, that it is continuance of the economically unsound policies of the New Deal, which began to be adopted seven years ago last May and which have been persevered in and increased ever since and, to afford one striking illustration of these policies and some illustrations of their effects, we publish herewith a table of statistics. These statistics include figures given in the bulletin of the National City Bank of New York for August showing the total taxes and the net income after taxes of all the active corporations in the United States in every year since the first Great War; and we have set these figures up in four-year periods. We have also added corresponding statistics of the railroads for the same years and periods.

Taxes Which Prevent Recovery

The first fact emphasized by these figures which will impress the reader is the almost unbroken continuity of the increase in the total taxes paid by the corporations of the country, including the railways, throughout the 20 years between the termination of the first Great War and the beginning of the second Great War. We were paying for our participation in the first Great War in the four years ending with 1922; but average annual taxes of all corporations increased from 2 billion 600 million dollars in these years to almost 2 billion 800 million dollars in the four years ending with 1926, and to over 3 billion 200 million dollars in the four years ending with 1930. There was a decline to an annual average of 2 billion 600 million dollars in the four extreme depression years ending with 1934; but this was followed by an increase to the enormous annual average of over 4 billion 200 million dollars in the four depression years ending with 1938.

The trend of railway taxes was exactly similar, excepting that railway taxes did not rise to new heights in the four years ending with 1938.

The effects of this almost unbroken increase of taxes on the net income left corporations in general and the railways in particular are shockingly evident. Capitalism is supposed to be a "profit and loss" economy; but the net income of 11 billion 500 million dollars after taxes earned by corporations as a whole in the four years ending with 1938 barely more than offset their loss of 10 billion 700 million dollars after taxes in the preceding four years. The result was that in the entire eight years ending with 1938 their net income after taxes was only 700 million dollars as compared with almost 48 billion dollars in the eight years ending with 1930.

Look at what happened to taxes meantime. In the eight years ending with 1930, when their net income after taxes aggregated 48 billion dollars, the total taxes of all corporations aggregated only 24 billion dollars, or half as much as their net income after taxes. But in the eight years ending with 1938, when their total

Taxes and Net Income after Taxes of (1) All Active Corporations in the United States and (2) Class I Railroads, 1919-1938, Inclusive

Year	(1) All Active Corporations			(2) Class I Railroads		
	Net Income Before Taxes (000,000)	Total Taxes (000,000)	Net Income After Taxes (000,000)	Total Taxes (000,000)	Net Income After Taxes (000,000)	
1919	\$9,526	\$3,107	\$6,419	\$233	\$447	
1920	7,292	2,823	4,469	272	431	
1921	2,120	2,175	-55	276	314	
1922	6,682	2,302	4,380	301	371	
Total	25,620	10,407	15,213	1,082	1,563	
Average ...	6,405	2,602	3,803	270	391	
1923	8,399	2,572	5,827	332	555	
1924	7,550	2,552	4,998	340	558	
1925	9,915	2,944	6,971	359	701	
1926	9,882	3,108	6,774	389	809	
Total	35,746	11,176	24,570	1,420	2,623	
Average ...	8,937	2,794	6,143	355	656	
1927	9,025	3,145	5,880	376	673	
1928	10,953	3,387	7,566	389	787	
1929	11,499	3,415	8,084	397	897	
1930	4,375	3,009	1,366	349	524	
Total	35,852	12,956	22,896	1,511	2,881	
Average ...	8,963	3,239	5,724	378	720	
1931	-515	2,630	-3,145	304	135	
1932	-3,002	2,373	-5,375	275	-139	
1933	168	2,547	-2,379	250	-6	
1934	2,920	2,758	162	240	-17	
Total	-429	10,308	-10,737	1,069	-27	
Average ...	-107	2,577	-2,684	267	-7	
1935	5,037	3,363	1,674	237	8	
1936	8,052	4,149	3,903	320	165	
1937	8,814	4,942	3,872	326	98	
1938	6,400	4,400	2,000	341	-123	
Total	28,303	16,854	11,449	1,224	148	
Average ...	7,076	4,214	2,862	306	37	
1939 .....	....	....	....	356	95	

between 1936 and 1940? It continued to increase until the middle of 1937, and then suffered a sharp recession as a result of which its volume in 1938 was about 15 per cent less than in 1936, in 1939 about 5 per cent less, and in the four years 1937-1940, inclusive, has averaged about 4 per cent less than in 1936—in spite of the continuing increase of population.

net income after taxes was only 700 million dollars, their total taxes were over 27 billion dollars—40 times as much. As to the railways, in the eight years ending with 1930 their taxes aggregated 2 billion 900 million dollars and their net income after taxes 5 billion 500 million—almost twice as much; while in the eight years ending with 1938 they had only 121 million dollars net income after taxes and paid 2 billion 300 million dollars in taxes—19 times as much.

By no means all the business of the United States

is done by corporations; but a very large part of it is; the experience of partnerships and individuals has been precisely similar to that of corporations; and therefore these figures powerfully emphasize two facts—first, that business never anywhere near fully recovered from the depression which began over 10 years ago; second, that huge government spending and resulting huge increases in taxes have been among the principal causes for the failure of business to recover. Corporations as a whole had a small **deficit before taxes** in the four

Are Freight Rates Too High?

From a standpoint of justice to shippers, railroad rates are obviously not too high. The carriers are being operated at continually increasing efficiency—despite which their earnings on their invested capital are far too low, measured either by any standard of "fairness" or the necessity of the railroads to earn enough to attract a constant inflow of new and refunding capital.

No. Any question as to the railroad rate level is not one for the regulators, nor of justice to shippers (at least, when considered as a whole). Rather the question is purely that of railroad self-interest. Is the present level of rates the "optimum" from the railroads' own standpoint? Are present rates producing the maximum that can be produced—not only now, but in the long run?

The I. C. C.'s recent study (Statement No. 4030) "Fluctuations in Railway Freight Traffic Compared with Production" presents important evidence bearing on this question. For convenient reference, we show selected indices taken from this statement:

Indices of Tons and Revenue and Revenue Per Ton for Class I Railroads 1928-1939

Products of	1928 Index			1939 Index		
	Tons	Revenue	Revenue per Ton	Tons	Revenue	Revenue per Ton
Agriculture ...	97.5	96.0	\$5.77	73.7	62.1	\$5.32
Animals	97.6	97.1	9.16	55.2	64.7	10.75
Mines	99.2	98.5	1.89	88.3	87.9	1.89
Forests	91.5	91.6	3.41	58.6	68.6	3.85
Mfg. Misc.	99.4	97.3	5.12	74.3	75.0	5.39
Total Frt.	98.3	96.9	3.64	78.5	72.6	3.66
L. C. L.	93.2	95.9	13.87	44.1	54.0	16.96

When it is considered that the average revenue per ton-mile for all traffic is continuing its gradual decline, notwithstanding the general increases that were taken on practically all traffic in 1938, it seems doubtful whether the railroads have improved their long-run position by making general increases in rates. At any rate, the I. C. C. figures indicate that railroad traffic is still being lost to further decentralization and by diversion to competitors. The freight rate level has since 1915 been increased all out of proportion to the increase in the level of commodity prices, a fact which probably has invited competition and encouraged decentralization.

While the railroads' rate policy is not unjust to shippers, the question remains as to whether it is altogether wise for the railroads themselves. Railroad transportation, carried on under ideal conditions of heavy trainloads and minimum grades and curvature is almost unbelievably economical. By

resolutely abandoning non-paying lines and services (which the railroads could not do when every community, however unimportant traffic-wise, needed railroad service for its continued existence), quite likely railroad transportation could be made to show a profit at a level of rates which would profoundly discourage most competition for longer hauls. But are not the railroads today attempting to continue, as a philanthropic public service, many high-cost operations which are no longer essential to the beneficiaries; and which, in any event, the railroads are no longer in a position to continue providing, because their profitable traffic refuses further to subsidize such philanthropy?

These questions are *merely questions*—not final conclusions. There are not available sufficient facts to justify anyone in a firm conviction pro or con on these questions. The point is: Are not such questions of such fundamental importance that it is worth while to take the risks and assume the costs necessary to get at the facts, which alone can provide satisfactory answers?

Obviously, with present thin net operating revenues, wholesale rate experiments would be impossible. Such experiments should be carried on only where they are least likely to do harm and where they are most likely to produce favorable results. More daring experiments can wait. Rate experiments in the area of truck competition seem to fill the bill of minimum risk and maximum opportunity. The trucks are handling less than 9 per cent of total traffic, but are garnering one-third of total revenues. Obviously no risks of operating losses can arise for the railroads when they move in against such fancy-priced competition as this.

This suggestion implies no "rate war" (as some hysterical truck propagandists have charged), nor "cut-throat" competition—resulting in disappearance of profits throughout the transportation industry. Rather, the suggestion is that the railroads go resolutely out to capture the traffic to which their economic superiority entitles them, and just as resolutely abandon to their competitors the traffic which the competitors can handle profitably at rates the railroad cannot meet.

Transportation people in their zeal to capture each other's business should not lose sight of the fact that they face not only the competition of each other, but also that of decentralization and other substitutes for transportation. Some of the critics of these articles, from the trucking fold, seem to have lost sight of that important consideration.

years ending with 1934, and consequently a huge deficit after taxes. Similar losses in the aggregate were incurred by partnerships and individuals. Recovery required that business should be afforded opportunity to soon offset these losses by making profits comparable to those made before the depression. But other government policies have prevented corporations as a whole from making as much **net income before taxes** as they made before the depression; and increases in taxes have been so great that annual net income after taxes has averaged less since 1934 than in any equal period since the Great War, excepting that including the depression years 1932-1934, inclusive.

If Recovery or Preparedness Is Desired, then New Faces Are Needed in Washington

Could any facts demonstrate more conclusively than those we have given that (1) on the average business in this country has been very bad during the last 10 years; (2) that, although much better than at the bottom of the depression, it is, measured by all pre-depression standards, still bad; (3) that it has been kept bad by economic policies of the present administration, which seeks to continue these policies for another four years; (4) that the country is not in any condition approaching one of economic preparedness, and would never be put in such a condition by those now in power? If these facts do not forcibly suggest that, as military preparedness must be based on economic preparedness, solution of the problems of both economic and military preparedness should be put in new hands, then we are quite unable to surmise what the facts do indicate.

Responsible Citizenship

Quietly, but steadily, an important movement has been speeded up during the past year or two in many of the communities served by the Railroad Y. M. C. A. As the outcome of a round-table conference at the triennial meeting of that organization in Toronto a little less than two years ago, a Commission on Responsible Citizenship was set up. Its primary purpose is to stimulate a greater interest in effective citizenship.

The fact was frankly faced that the understanding and recognition of the fundamental principles underlying our form of representative democracy have become dimmed in the minds of many of our citizens, largely because of complications of modern life; in many instances, in fact, citizens have become indifferent to their civic responsibilities. While there was no disposition to question the value of discussion groups on public affairs and current events, it was felt that something more direct and concrete was needed. Of what use is it when a citizen does become convinced that certain policies should be pursued, if he does not understand how to make his individual influence felt in bringing about necessary changes?

Then, too, there is the defeatist attitude, so prevalent

in this country, that individual effort is largely useless because of being submerged in such great groups. There are plenty of evidences, however, if one will look for them, of small groups taking up a worth while cause or reform, and making it effective in a large community.

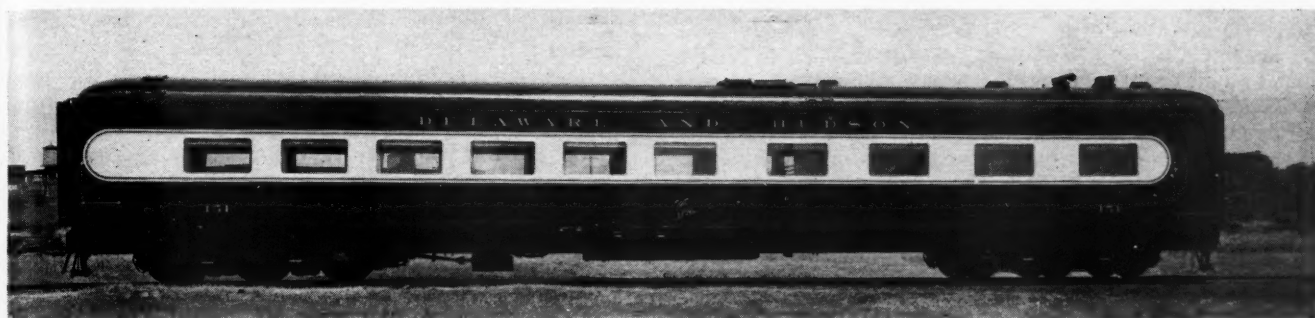
With these things as a background, the Commission on Responsible Citizenship, with the aid of a few self-starting associations, inaugurated a program, or variety of programs, that have steadily gathered force and are now about to enter a second or third season, as the case may be.

Railroad Y. M. C. A.'s ranging from metropolitan districts in which they are a mere incident, to country districts or places in which the entire community centers largely around railroad activities, have little in common. Conditions and practices vary widely. A busy metropolitan association, for instance, has retained a capable leader, who has built up a study class of railroad employees on responsible citizenship, which ranks in interest and attendance with the public speaking class under a widely known leader. On the other hand, an association in a small community, mostly made up of railroaders, has instigated and furnished the leadership for a series of talks at the assemblies of all of the high schools in the county; in addition, it maintains among the activities within its building a lively and well attended study course on responsible citizenship.

Another Railroad Y. M. C. A. in a railroad center has encouraged its junior members to organize along lines paralleling the city administration, with a mayor, city council, commission heads, etc., even down to the police. The city loaned it a voting machine for its recent election, and this group is becoming an important factor in the operation of the Y building.

Another association is conducting citizenship classes for railroad workers who are aliens or under-privileged; many of the group, in fact, must be taught elementary English.

These are typical of some of the ways in which interest is being stimulated in better citizenship. In these days, when democracies are under fire or are falling by the wayside, it behooves all of us to support those measures which will revive an understanding of and emphasize those basic principles upon which our Republic is founded. Only in this way and by understanding how to make our influence as individuals felt, can we safeguard the heritage which has been handed down to us by our forefathers, who suffered and bled that we might have liberty. We must help, also, to supply those educational influences that will assist in instrumenting and making really effective the spirit of the resolution which was passed by Congress last May, authorizing a Presidential proclamation each year, designating the third Sunday of May as "I Am An American Day." The resolution suggests that on such occasions all young people coming of voting age within the year, or aliens qualifying for citizenship, be formally inducted into citizenship.



D. & H. Diner Rebuilt as a Combination Diner-Lounge

D. & H. Rebuilds Diner-Lounge for Albany-Montreal Service

Interior arrangement and decorations, planned and styled by the railroad, has resulted in a car of unusual attractiveness

THE Delaware & Hudson has recently placed a diner-lounge car in service on the "Laurentian," the exterior and interior decorative treatment of which was designed to harmonize with the coaches purchased last year from the American Car & Foundry Co. This car, planned and styled under the personal supervision of G. W. Ditmore, master car builder, was reconstructed at the company's shops at Colonie, N. Y. Earlier this year two coaches were likewise modernized in these shops.

This diner-lounge is of all-steel, partially welded, construction. The parts which were used again in the rebuilt car comprised a fish-belly underframe, steel posts and braces and the six-wheel trucks which were equipped with A. S. F. roller bearing units with Timken bearings. Stretcher-levelled open-hearth steel was used in the superstructure, the sides being of $\frac{1}{8}$ -in. plate and the roof and skirt $\frac{3}{32}$ -in. plate. These plates were formed to the proper shape by the manufacturer thus facilitating the assembling and fitting operations. The light weight of the car is 166,000 lb. The Chanarch flooring is covered with a $\frac{3}{8}$ -in. layer of Tucolith. The car is well insulated, there being $3\frac{1}{2}$ -in. Stonefelt insulation in the floor and 2-in. in the sides, ends and roof. The inner panels, ceiling, and headlining are of Masonite while Plymetl was used for the partitions. The windows have the O. M. Edwards double-glazed sash with the outer plate glass and inner safety glass set in rubber. Dehydrating tubes are located between the glass to prevent fogging of the windows.

The trucks are equipped with Evertite side bearings. Fabreka pads were used as a sound-deadening material on the truck center plate, center bearing bridge, truck and body side bearings, bolster springs (top and bottom), transom wear plates, spring plank, equalizers, center and side bearing stems, and over and under the coupler at the carrier irons.

Lighting, Air Conditioning and Heating

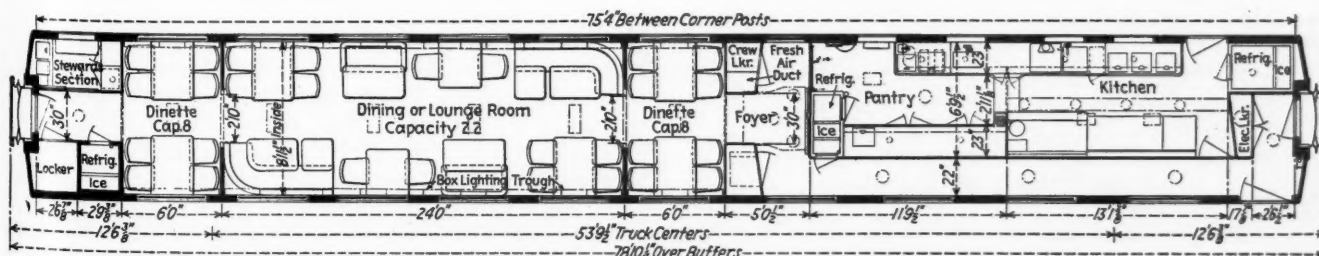
Power for lighting and air conditioning is obtained from a 20 kw. General Electric generator equipped with a Safety V-belt-and-gear drive. The battery is a 64-volt Exide having 32 cells.

The car is air conditioned by a five-ton General Electric electro-mechanical system with the compressor and the condenser mounted under the car and the evaporator unit mounted over the ceiling near the middle of the car. A roof hatch has been installed to facilitate servicing of the evaporator unit. Draftless air distribution is secured by means of the Pyle-National multivent system.

The steam heat installation is the Vapor system, temperatures being regulated by means of correlative control. The floor radiators are copper-bearing steel fin tubes concealed behind stamped metal grilles.

Interior Arrangement

Comfortable accommodations are furnished for serving 38 persons. The main section—dining and lounge—is



Floor Plan of the Rebuilt Diner-Lounge

24 ft. in length, with a seating capacity of 22, and each of the two dinettes, which are separated from the dining and lounge room, seat eight persons.

There are five tables on each side of the dining and lounge rooms, two of which are in front of a curved divan, upholstered in red leather, located at one end that seats three persons. Next to this divan, in order, is a table and two chairs, a table and a settee, upholstered in a currant red fabric, seating two persons, and a table and four chairs. The appointments on both sides of this room are exactly alike except that the furniture on one side is arranged in reverse order from that on the other. All of the tables are of tubular aluminum construction with Formica tops, the centers of which have the appearance of "mother of pearl" with a three-inch black border, and an aluminum edge raised slightly above the

lounge room and dinettes are grey green and currant red. The rug is a grey green with a leaf design cushioned with Pneu-pads. The side walls below the windows are a dark green as are also the steam-pipe guards and grilles. Grey green was used for the pier, side, and Multivent panels, for the middle of the partitions and ends, and for the light troughs along the sides of the car. The headlining from the Multivent panels to the light troughs and the ends of the partitions and end sections are oyster white. There is a Venetian blind at each window, the aluminum slats of which are painted an oyster white. The curtain boxes are brick red with a wide center stripe of aluminum.

The color of the window drapes is predominately red with horizontal stripes of green and white. The window sills are of black Micarta.



A Dinette Is Located at Each End of the Dining-Lounge Room—In the Foyer Is a Full-Length Mirror in the Position Normally Occupied by a Buffet

table top. The pedestal leg base is cast iron covered with an aluminum shield.

At one end of the car is the kitchen, slightly over 13 ft. in length, and the adjoining pantry which occupies a length of about 12 ft. Between the pantry and one of the dinettes is the foyer, in which is located a linen-and-silver locker on one side and a clothes locker and the fresh-air duct on the other. At the opposite end of the car is the steward's section completely equipped for mixing drinks. Across from this section is a locker and a refrigerator. The equipment in the kitchen, pantry and steward's section is of stainless steel and was furnished by Angelo Colonna. The kitchen has a Surgex electric dishwasher and an Everpure water purifier that filters all drinking water. This water is pre-cooled by ice before it is drawn and eliminates the need of placing ice in the water glasses.

Interior Decorative Treatment

The simplicity of the interior design, combined with the soft colors, has resulted in an atmosphere both pleasing and restful. The prevailing colors in the dining and

The entrance at the kitchen end, on the right hand side, is finished in dark green lacquer while the decorative treatment of the window side conforms with the general interior appearance of the car. In the corridor are Pantasote curtains with turquoise inside facings. The steward's section, at the opposite end of car, is done in opalescent gun-metal lacquer.

Upholstery on the chairs in the dining and lounge room is grey green. The curved divans are finished in red leather, the straight settees in currant red. In the dinettes the chairs are all upholstered in currant red. Along the full length of the Multivent panels at each side are Pyramid stainless-steel snap-on moldings, the edge of which is painted a brick red. The dinette partitions are trimmed with aluminum shapes. In the foyer, in the position normally occupied by the buffet, is a full length plate-glass mirror.

The exterior of the car is finished in the same colors that were employed for the new coaches purchased last year. The bodies are finished in a dark green. A soft grey panel, accented with an orange stripe is used to outline the outside window areas. The handholds are chromium plated.

The Railroad in Literature as a Public Relations Medium

Railroads figure large in story and song, much of which could be used for public relations purposes

By Frank Donovan, Jr.

United States Travel Bureau

Novels, histories, short stories, poems and songs which center upon railroading afford valuable aids for railroad publicity departments—if only they could be found easily. The writer of this article has spent his spare time for several years burrowing in Washington's extensive library facilities, and sets forth herewith a few of his "finds" together with a selected bibliography which he has culled from a copious record.

RAILROAD publicists, in recent years, have become more and more alert to the value of photoplays, drama, and historical publications which depict the role of the iron horse in the growth and prosperity of our country. In the development of public relations instruments, however, full utilization does not appear to have been made of one very important source of popular appreciation of the railroad industry,—American literature. Novels, short stories, poems, songs and essays with railroad settings—many seem to languish virtually unnoticed in libraries and book stores, yet this literature, if classified and made available to the average reader, could be a valuable and inexpensive stimulant of interest in railroads and railroading.

There are novels, for example, which dramatize the progress of railroading from the days of early pioneering up to the present time. Among these are Frank H. Spearman's "The Mountain Divide," Zane Grey's "The U. P. Trail," and Ernest Haycox's "Trouble Shooter." (The latter story was the basis for the popular photoplay "Union Pacific.") "The 17" by Edwin C. Washburn, recounts the adventures of a pioneer locomotive on the Soo.

Many stories, of course, are not identified with any particular railroad—Francis Lynde's "Young Blood," and Frederick Nebel's "Sleepers East" are examples. The former concerns the rehabilitation of a mismanaged road by a youthful executive; the other tells of murder committed aboard a speeding express.

The political and social problems which accompanied the rise of the railroads prior to the turn of the century are dealt with in novels of high literary merit (but not always showing the carriers in a favorable light), including Winston Churchill's "Coniston" and "Mr. Crewe's Career," Frank Norris' "The Octopus," and May Merrill Miller's "First the Blade." Both of the Churchill stories have their setting in New Hampshire, while the other two novels are set in San Joaquin valley, Cal.

Hundreds of short stories in American literature have adopted some aspect of railroading for a theme. Among

the more famous of these is Octavus Roy Cohen's series "Epic Peters: Pullman Porter," which appeared originally in the Saturday Evening Post. The antics of the brass-buttoned hero on the Southern elicited a chuckle from many readers. Probably the finest of railroad short stories, however, is Kipling's ".007." This personifies an American-type locomotive on the Boston & Albany, who discloses her conversation with other engines and climaxes her career with a record run. Another top-notch yarn by a former employee of the Texas & Pacific is "High Water" by A. W. Somerville, concerning a work train along a flooded right-of-way. For timeliness and broad reader appeal, Doug Welch's "Mrs. Union Station" is unsurpassed. This narration of the trials of a young lady married to a model railroad enthusiast strikes a new note in short story themes. Other good "shorts" include Thomas Nelson Page's "Run to Seed," a homely tale of a Virginia boy who makes good as a locomotive fireman, and Jesse Stuart's "Huey, the Engineer," who ran on a backwoods short line in Kentucky.

There are a number of juvenile stories about railroads but few of them by authors who know the facts of railroad operation. Burton E. Stevenson's "The Boys' Story of the Railroad" series is an exception. This four volume set dealing with train operation on the Baltimore & Ohio is based on the author's observations as a railroad reporter in Chillicothe, Ohio. Other good novels of the 'teen ages are Cornelia Meig's "Railroad West" describing early construction of the Northern Pacific, and Edwin L. Sabin's "Opening the Iron Trail" concerning the Union Pacific.

In the period from 1890 to 1910, roughly speaking, a group of writers sprung up whose main theme was railroading. In this group, which may be referred to as the "railroad school," were Frank H. Spearman, Cy Warman, Francis Lynde, and Frank L. Packard. Three others, not so well known but nevertheless specialists in their field, were Herbert E. Hamblen, John A. Hill and Alvah Milton Kerr. Of the 200 or more volumes of railroad novels and short stories extant, the "railroad school" produced a considerable portion. Unfortunately, the works of these authors are, for the most part, no longer available but are well worth reading if one is fortunate enough to obtain them.

In poetry the railroad has enjoyed a prominent position. Arthur Crew Inman's book of poems entitled "The Night Express," apart from being the only cloth bound volume of railway verse in print, is distinguished by a thorough knowledge of the industry and a keen sense of poetic values. There is practically no limit to individual poems about the railroad industry. In "What the Engines Said," Bret Harte, the frontier poet, symbolized the completion of the first transcontinental. Carl Sand-

(Continued on page 312)



The Rugged Country in the Feather River Canyon Presented Many Problems in Strengthening and Refining the Original Line

DURING the last four years the 924-mile main line of the Western Pacific, extending from San Francisco bay, at Oakland, Cal. to Salt Lake City, Utah, has been extensively rehabilitated in a program which has seen nearly 600 miles of track laid with heavier rail and fastenings; 293 miles of roadbed reballasted with crushed rock and processed gravel; curve spirals increased in length for higher speeds and more comfortable riding; and heavy tie renewals with treated ties, replacing untreated ties which had been standard since the line was constructed. Supplementing this general strengthening of the roadbed, which was carried out by highly organized forces, fully equipped with power tools, the road strengthened its bridges, improved the condition of many buildings, enlarged and improved its locomotive and car shop facilities, including the construction of a new longitudinal-type locomotive shop at Sacramento, Cal.* and materially improved its position as regards power and rolling stock. This program, the major part of which was carried out during the years 1936-1938, involved an expenditure in excess of \$10,000,000 during these three years.

The Western Pacific, the last of the transcontinental lines to be built in this country, was constructed during the years 1905 to 1911 to give the Denver & Rio Grande

* A description of the shop improvements at Sacramento was presented in the *Railway Age* of September 16, 1939, page 406.

Rehabilitating a

A story of how the Western Pacific has practically rebuilt its 924-mile main line from Oakland, Cal., to Salt Lake City, Utah, employing modern methods and high standards of construction.

Western an outlet to San Francisco bay from its western terminus at Salt Lake City. In many respects, this road represents an outstanding piece of railway construction, having been built with a maximum gradient of 1 per cent and maximum curvature of 10 deg., in spite of the fact that over large distances it traverses difficult, mountainous terrain, and in one territory, from Oroville to Portola, Cal., a distance of 116 miles, in its Feather River Canyon passage through the Sierra Nevada mountains, it has an almost continuous 1 per cent grade through a rise of 4,627 ft.

In this canyon, the line is essentially a sidehill railroad along or cut back into the canyon faces which rise at points to a height of a thousand or more feet above the bed of the river, or tunnel through projecting cliffs or bluffs which it would have been impossible to encircle, especially while maintaining the aim of the builders for a line of 10-deg. maximum curvature. In this same territory there are more than 72 miles of curved track in 391 curves, with combined curvature of approximately 16,452 deg., equivalent to more than 45 complete circles, and, in addition, 33 tunnels with an aggregate length of 22,008 ft., these including all except 10 of the 43 tunnels on the main line between Oakland and Salt Lake City, which have a combined length of 44,189 ft.

Other sections of the road of special interest from the standpoint of construction, maintenance and train operation include summits at Antelope, Jasper and Silver Zone, Nev.; a continuous 33-mile 1 per cent grade between Silver Zone and Wendover, Utah; Arnold's loop in this latter territory, a U-shaped section of track 6.5 miles long, with 2,230 ft. in a continuous 10-deg. curve located for the most part on an embankment 75 ft. high; and 178 miles of "paired" track with the Southern Pacific, between Weso, Nev., and Alazon, where both roads use the Western Pacific single track for all eastbound movements and the Southern Pacific single track for all westbound movements.

The construction standards employed in building the Western Pacific were in keeping with the requirements

g a Railroad to Meet Present-Day Conditions

of the times, when the largest locomotives to be operated over the line were 40 ft. in length, without tender, weighed 92 tons, and were operated at maximum speeds of 40 m. p. h. In general, however, to keep construction costs to a minimum, cuts and fills on some sections were constructed to narrower widths than present standards, tunnels were unlined, except for such timber supports as were necessary, and bridges were built largely of timber in accordance with Cooper's E-50 loading. For the track structure, 85-lb. rail was used throughout on 7-in. by 8-in. by 8-ft. untreated ties, ballasted with gravel to a depth of 6 to 8 in. beneath the ties. The ties were not plated except on curves over one degree, and where plates were used they were of relatively small size.

Extensive Bank Widening and Ballasting

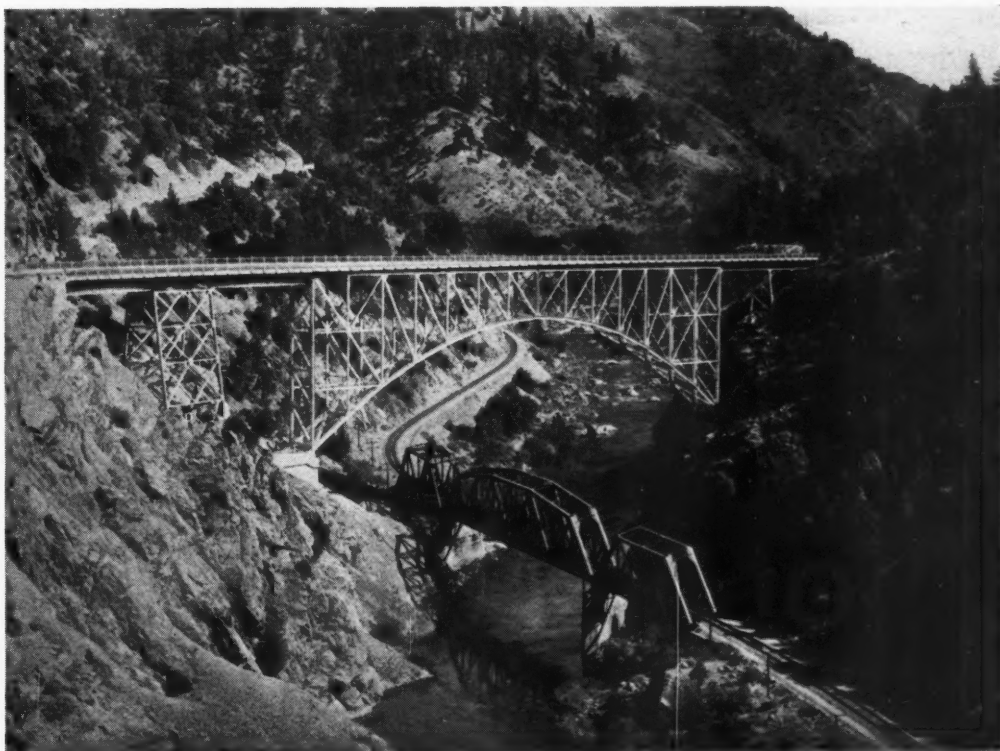
Following the completion of the line, relatively little other than routine maintenance work was done until about 1924, when a large-scale program of bank widening was started, approximately 177 miles of this work being completed in that year. In 1925 and 1926, little work of this character was undertaken, but in the following five years, with the aid of additional work equipment purchased in 1927, including a locomotive crane, three Jordan spreaders and 40 air-dump cars of 20-cu. yd. capacity, 649 miles of bank widening was carried

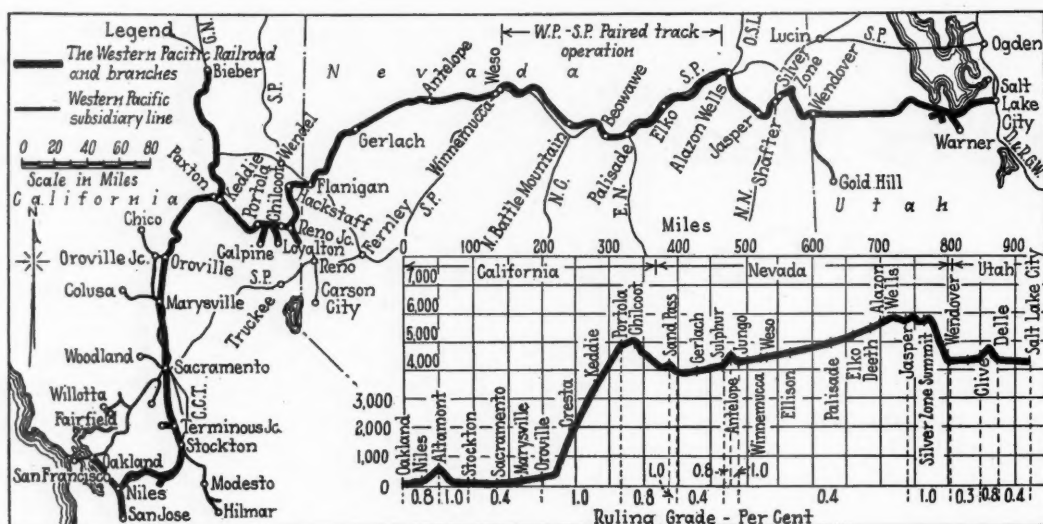
out, which, with the 177 miles of such work completed in 1924, extended over approximately 90 per cent of the main line. In this work, cuts were widened to give a minimum roadbed width of 20 ft., and hundreds of thousands of tons of earth and rock were unloaded along embankment slopes to give increased stability to the track. At the same time, many miles of embankment in the Feather River canyon were rip-rapped with coarse rock to afford protection against wash and scour.

Within these same five years, with the aid of a sizable complement of portable air compressors and tamping tools, a considerable program of track ballasting and surfacing was carried out, largely between Oakland and Oroville, this amounting to a total of 304 miles, or an average of 60.8 miles each year, and, in addition, in the four years 1926, 1927, 1928 and 1930, 223 miles of track was relaid with new 85-lb. rail.

Between 1931 and the first part of 1936, while still working out the service life of much of the material in the original roadbed and track construction, little track or roadbed work was done other than of a routine character, except that, with rail conditions becoming progressively worse, 30 miles of 100-lb. rail and 70 miles of 112-lb. rail were laid in 1935, these new sections reflecting the adoption of new standards calling for the use of 100-lb. rail in the territory of flatter grades, except in the paired track territory between Weso and Alazon,

Particular Attention Was Given to Those Sections of the Line in Mountainous Territory, With the Heaviest Curvature and Grades, Where Bridges Were Strengthened and the Track Generally Was Rebuilt to Higher Standards





Sketch Map and Profile of the Western Pacific in its Crossing of California, Nevada and Utah, Between San Francisco and Salt Lake City

and for the use of 112-lb. rail continuously in the paired track territory, through the Feather River canyon east of Oroville, and on the other mountain grades. Approximately 60 miles of 110-lb. rail had been laid in 1931 and 20 miles of such rail in 1934, but this section was abandoned with the development of the materially stiffer 112-lb. section.

Heavy Rehabilitation Program 1936-1938

By the latter part of 1935, with still more than 497 miles of the original 85-lb. rail in main track, some of which had carried as much as 175,000,000 gross tons of traffic, and most of it more than 150,000,000 gross tons, it became evident that a major program of track rehabilitation was essential, particularly in view of the program then under way for increasing the weight of locomotives and the stepping up of train schedules generally. As a result, such a rehabilitation program was built up, which, during the years 1936-1938, inclusive, witnessed 64 additional miles of bank widening, bringing to completion 100 per cent of such work on the main line; 293 miles of track ballasting with crushed rock or processed gravel, which, with the reballast work which had been completed between 1924 and 1931, totaled 659 miles, or approximately 71 per cent of the main line track; and the laying of 271.6 miles of 100-lb. rail and 219.4 miles of 112-lb. rail.

In the rail phase of the program, all of the heavier grades on the line, including the 116-mile climb up the Feather River canyon to Portola and beyond, the climb both ways to the summit at Antelope, the west side of the hill at Jasper, and the 1 per cent grade territory from Silver Zone to Wendover, were relaid with 112-lb. rail. At the same time, all those sections of the paired track with the Southern Pacific equipped with rail weighing less than 110 lb. were relaid with 112-lb. rail. As the result of this work, approximately 70 per cent of the rail now in the main line was rolled and laid during the five years preceding December 31, 1938, and, with the exception of about six miles within the City of Oakland, there is now no rail in the main track older than 1926.

Along with the 293 miles of ballasting carried out in the years 1936 to 1938, inclusive, which involved raises of four, six and eight inches in different territories, depending upon the amount of traffic, permissible speeds and other local factors, the road renewed 509,374 ties in 1936, 577,584 ties in 1937, and 344,805 ties in 1938, a total of 1,431,763. At the same time, it adopted a 7-in. by 9-in. by 8-ft. tie for all main line tracks, and the incising, preservative treatment and preboring of all ties for use

in other than salt desert country and in curves of 6 deg. or more, the preservative treatment involving a creosote-asphalt-base oil mixture applied to a retention of 5 lb. of creosote and 3.75 lb. of fuel oil per cu. ft. Prior to 1937, no ties on the line had been treated, and the average life of the untreated ties was about eight years. Through the treatment now afforded, it is expected that, except as limited by mechanical wear in some cases, the ties will have a life of 20 to 30 years.

Along with these improvements in major features of its track construction came other features such as larger



On the Western Division, Near Niles, Cal., Showing the High Standards to Which the Track Has Been Rebuilt

tie plates, longer spikes, heat-treated joint bolts, and secure anchorage of the track with anti-creepers. In the latter regard, the present standard calls for 7 anchors to the 39-ft. rail, generally, on the road, except in the Feather River canyon, where 10 anchors are applied.

Work Carried Out by Well-Equipped Forces

Equally as important as the scope of the improvement program from 1936 to 1938 was the effective manner in which it was carried out, employing highly organized forces and a full complement of work equipment. Supplementing the \$274,800 which the road had expended for roadway work equipment from 1927 through 1935, and specifically for the purpose of facilitating the heavy work scheduled for 1936 through 1938, it purchased an additional \$41,000 worth of equipment in 1936, including power track wrenches, pneumatic spike drivers, power spike pullers, tie adzing machines, Burro rail-laying cranes, track motor cars, and 24-tool pneumatic tie tamping outfits.

All of the reballasting was carried out with specialized gangs of 100 to 111 men, with ample supervision to insure the highest quality work. The first operation in the reballasting work involved the cutting down of the old ballast at the ends of the ties to the bottoms of the ties, employing a Jordan spreader and using this material to widen out the ballast shoulder, and then skeletonizing the track wherever this appeared desirable to get rid of crib material which was not suited for placing beneath the ties. Where the total track raise was in excess of four inches, the raise was made in two lifts, the first lift being shovel- and traffic-tamped, and the second lift, power-tamped. On skeletonized ballast jobs, the customary methods were followed. Except in these latter jobs, the track was jacked up through the initial spread of new ballast and shovel-tamped to uniform bearing, the ties being spaced and renewed as necessary as the work progressed. Then, following several days of further consolidation of the ballast under traffic at a maximum speed of 30 m. p. h., the second spread of ballast was made, followed by the final lift of the track and power tamping throughout, employing generally 16- and 24-tool pneumatic tie tamping outfits. Where the total raise was not in excess of 4 in., the work was completed in one operation, the final surface being put on immediately with power tampers.

As was the case in the reballasting work, the forces employed in the 1936-1938 rail program were well organized, the work in these years being done largely by three highly specialized gangs ranging in size from about 105 to 112 men. These gangs, which were fully equipped with power wrenches for uncoupling the old rail, power spike pullers, tie adzing machines, rail cranes, power spike drivers, power bolting machines and power rail drills, and also with cranes for distributing the new rail and picking up that released, carried the work forward at a rapid rate, laying an average of more than a mile of track each working day, including the renewal of all turnouts and the picking up of all released materials, in spite of the fact that the work was done under traffic, requiring that repeated closures be made to permit train movements.

Other Improvements

Supplementing the extensive work already mentioned as included in the 1936-1938 program, all curve spirals were lengthened to permit increased speeds and greater riding comfort; rail lubricators were installed to lubricate all curved track in the Feather River canyon and on the Jasper and Wendover grades; bridges were strength-

ened generally to Cooper's E-60 rating, including, among other items, the substitution on wood trestles of four 8-in. by 20-in. stringers beneath each rail for the former standard of four 8-in. by 17-in. stringers; and extensive tunnel lining work was carried out where this appeared desirable. The extent to which the tunnel lining work has proceeded through the years is seen in the fact that whereas a minimum of lining was provided in the 43 main line tunnels when constructed, with their total length of 44,189 ft., 24,834 ft. of these tunnels is now lined with timber, and an additional 9,997 ft. is lined with concrete—all of this work having been done under traffic with company forces. As regards the extensive use of rail lubricators in the territories of heaviest curvature, it is said that experience thus far indicates that the use of these machines will at least double the life of rail in 10-deg. curves.

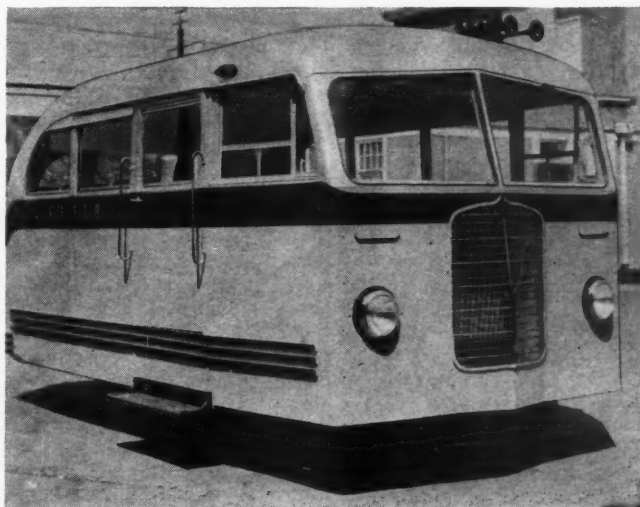
Having completed its main line rehabilitation program in 1938, the Western Pacific, at the end of that year, found itself in condition for efficient and economical train operation, with the prospects of only normal maintenance requirements for a number of years in the future. As a matter of fact, the only work of any magnitude carried out in 1939 was tie renewals, which included the replacing of 477,643 ties. No bank widening was carried out during the year; ballasting was limited to patchwork; bridge and tunnel maintenance was normal; and rail renewals were confined almost entirely to the replacement of curve-worn rail at various points on the line.

All of the work referred to in this article was carried out under the direction of Col. J. W. Williams, chief engineer of the Western Pacific, and B. J. Simmons, engineer maintenance of way and structures.

Buda Passenger and Official Inspection Cars

THE Buda Company, Harvey, Ill., has developed a line of passenger and official inspection cars, in which the passenger cars are available in capacities of 8, 12, 16 and 20 persons and the inspection cars are available in capacities of 8 and 12 persons.

The cars consist of all-steel streamlined bodies mounted on a chassis with a 6-in. steel channel-type frame and a 4- or 6-cylinder Buda automotive-type engine, which varies in size with the passenger capacity and



The New Buda Inspection Car

service requirements. The bodies are of double wall construction and are padded from the chassis by live rubber insulation. The seats are of the tubular steel frame bus type, covered with genuine leather upholstery. The frame is supported on wide leaf-type springs with Buda patented thrust plates, and the axles are equipped with Timken roller bearings. The transmissions are geared for operating the car in three or four speeds in either forward or reverse directions.

Each car is provided with full safety and control features, including a full width, two-piece, V-type windshield; automatic windshield wipers with handles for emergency operation; a rain visor; a non-glare rear vision mirror and an instrument panel with a complete set of gages.

The official inspection cars differ from the passenger cars in the arrangement of seats and the design of their bodies. The passenger cars are slightly more streamlined, have a different seating arrangement and one rear door, while the inspection cars have no rear door, and are provided with table-high shelves for the convenience of inspectors making notes. The cars are said to provide exceptionally smooth riding, to be capable of maintaining full speeds continuously and to operate at an extremely low fuel cost.

The Railroad in Literature As A Public Relations Medium

(Continued from page 307)

burg, too, is remembered for his selections entitled "Caboose Thoughts," "Work Gangs" and other railroad verses.

There is nothing like song, however, to bring out the full-lived spirit of the railroad. Everyone knows "Casey Jones"—

All the switchmen knew by the engine's moan
That the man at the throttle was Casey Jones.

It's catchy, it's simple, but above all it's arresting—for it conveys something of the lilt of the rails and the romance of railroading. Other songs may be found in John A. Lomax's "American Ballads and Folk Songs" and Carl Sandburg's "The American Songbag."

Outstanding among travel books in which the railroad is represented is Edward Hungerford's "Pathway of Empire." Other volumes describing trips on American railroads are Kipling's "From Sea to Sea," Stevenson's "Across the Plains" and Dickens' "American Notes."

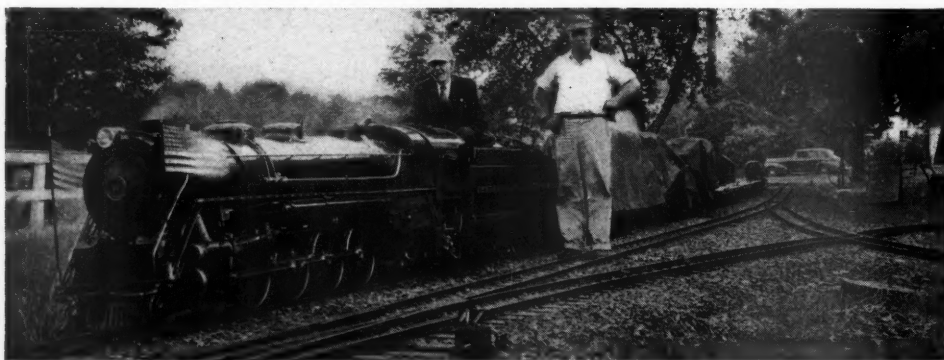
From travel books to travel essays is a logical sequence which begins and ends with Christopher Morley. Morley, like Hungerford, can hardly write a book without some reference to railroads. His little selection "On the Way to Baltimore" will be especially enjoyed by anyone

associated with the Baltimore & Ohio. Other essays by Morley describe trips over the Pennsylvania, Jersey Central, Reading, New York Central, Rock Island, Union Pacific and Chicago & North Western.

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John Draney, Popular Retired Engineman of the Lackawanna, Operates the Premier Train on the Recently-Inaugurated Centerville & Southwestern Which Operates Over the Length and Breadth of a Large Dairy Farm at Roseland, N. J. The Locomotive is complete in Every Detail and Burns Bituminous Coal. The Cars Are Equipped with Standard Air Brakes

Preliminary Senate Skirmishes on S. 2009

WASHINGTON, D. C.

PRELIMINARY skirmishes in connection with the forthcoming Senate debate on S. 2009's revised conference report got under way on August 23 when Senator Clark, Democrat of Missouri, served notice that he intended to make a point of order against the report, contending that the conferees "have included matter not germane to the bill as considered by either House, and therefore that they have exceeded their authority." After passage of the Conscription Bill on Wednesday night, Senate Majority Leader Barkley said he expected that the Defense Appropriation Bill would be acted upon Thursday, and that the conference report on the Transportation Bill would be disposed of by Friday evening.

Senator Clark's point-of-order notice came when he inserted in the August 23 Congressional Record a brief statement of his own and a "Memorandum on S. 2009" which he said had been prepared by "a committee of Middle-Western shippers." Mr. Clark's objections as do those set forth in the shipper memorandum run in the main to that change in the Panama Canal Act which the conferees have insisted is a clarifying one—merely giving statutory sanction to the construction placed by the Interstate Commerce Commission on the present law with respect to acquisitions by railroads of water carriers, other than those operating through the Panama Canal. The objectors do, however, raise additional points with respect to what they interpret as a similar change in the Motor Carrier Act's provisions with respect to railroad acquisitions of highway carriers. Moreover, Senator Clark does not like the idea of eliminating the Miller-Wadsworth amendment; and he also asked if Congress were "prepared to ignore the warnings of the War Department, the Agriculture Department, and the Maritime Commission that this legislation is detrimental to the national defense."

Wheeler Hits Propaganda

After the Missourian had presented the aforementioned memoranda, Conferee Wheeler, Chairman of the Senate Committee on Interstate Commerce, arose to say that the amendment to the Panama Canal Act was made "at the suggestion of the Interstate Commerce Commission, and it was made in accordance with what their rulings have been with respect to the law as it exists today." Previously the interstate commerce committee chairman had referred to "a great deal of propaganda carried on by some Mississippi Valley interests . . . and by certain persons who are opposed to the regulation of ships engaged in interstate commerce."

Senator Clark replied that the memorandum he had submitted was not authored by persons interested in barge-line operations. "It was prepared by a committee representing a number of small cooperatives who feel that they will be very unjustly discriminated against by the measure." The Missourian knows that the conferees' action was taken at the suggestion of the I. C. C.—"in order to try to get written into the law an illegal, erroneous construction which the Interstate Commerce Commission has been placing on the existing law for a long period of years, for the purpose of flouting the will of Congress." Mr. Wheeler came back with an expression of his view that the interpretation which the I. C. C. has placed upon the law "can easily be shown to be a correct interpretation. . . ."

"The law as it stands today," the Montanan went on, "is very confusing, and it is very difficult to say exactly what the Congress meant when it passed the law . . . it contains one paragraph the meaning of which would be difficult for any lawyer to define. I wish to call attention to the fact that the Interstate Commerce Commission in three different decisions has placed the construction upon the law which the amendment provides, and there has never been an appeal from any of those decisions which the commission has made. In my judgment, the amendment does not change the present law. I would be the last person to permit the railroads to buy or operate barge lines or steamship lines which would put out of business any of the steamship or barge lines now operating upon the Mississippi river.

"It might have been possible for the railroads to do that at one time. However, I wish to call attention to the fact that under this proposed law the Interstate Commerce Commission will regulate the rates on all ships, whether they be owned by a railroad or by a private company. So the railroads could not proceed to cut rates in order to put some independent company out of existence. That is one of the things which those who have presented the objections, if they were honest about it, would admit they have overlooked. They have overlooked the fact that the Interstate Commerce Commission under the proposed law would not permit a railroad or anyone to cut rates for the purpose of putting someone else out of business."

Norris Worried About Miller Amendment

Here Senator Norris, Independent of Nebraska, broke in to say that what has worried him more than anything else about the bill is the conferees' action in striking out a provision which was passed by both the Senate and House. He referred to the Miller-Wadsworth amendment; whereupon Senator Wheeler explained that there was a difference between the Miller amendment adopted in the Senate and the Wadsworth amendment adopted in the House. He added that he accepted the Miller amendment "only with the understanding of the author that I would take it to conference." Continuing, the Montanan told Senator Norris that if the Miller amendment had been adopted "it would have done the smaller communities in the country one of the greatest disservices that possibly could have been done . . . practically every branch line in the country would have had to be abandoned"; because the Miller amendment provides that "no rate on a railroad shall be reduced below the cost of operating the particular line." Moreover, the I. C. C. "has said to us that as a practical matter such a provision would be almost impossible to execute."

Senator Norris' understanding of the Miller amendment did not agree with the foregoing; as he remembered it, the provision applied to rates on the rivers, and not on the railroads. When Senator Wheeler replied that "the Senator is mistaken," Mr. Norris conceded as much; but still it seemed to him that the conferees' disposition of the Miller-Wadsworth amendment made the conference report subject to a point of order. Mr. Wheeler recalled how a similar point of order was raised in the House and overruled, adding that "it has been overruled in this body on similar occasions."

At this point Senator Clark reentered the debate to assert his familiarity with the precedents relied upon by the conferees to sustain the validity of the conference report; the Missourian recalled that he had written "two or three" of the pertinent opinions when he was parliamentarian of the House. Also, he wrote one which has been cited in cases (like that of S. 2009) where one House passed a bill and the other House struck out all

after the enacting clause and substituted other language. "But," Mr. Clark added, "there has always been a 'kicker' attached to that opinion, which is that the changes must be germane to the subject matter. . . . I do not desire to argue the matter at this time further than to say that if this conference report is sustained it will establish a parliamentary precedent going very far beyond any which has ever heretofore been established." Senator Norris has "much the same idea"; but as Senator Wheeler understood it "the Speaker of the House based his decision upon the decisions which the Senator from Missouri himself had actually written." The opinions written by himself, Mr. Clark replied, "were right, but they do not apply to the present situation."

Senator Shipstead, Farmer-Laborite of Minnesota, who filed a minority report in opposition to S. 2009 when it was first reported from the Senate committee on interstate commerce, expressed the hope that his colleagues would probe the conference report as it affects the Panama Canal Act. He asked Senator Wheeler if the effect of the change "will be to validate the authority and power which the Interstate Commerce Commission has assumed." "Not to validate it because the decisions are already validated," the Montanan replied. "There never was any appeal from those decisions." Mr. Shipstead came back with: "Then why ask for the change?" Replying, Senator Wheeler said again that the present language "is misleading," it being "almost impossible to tell from that language what the Congress had in mind."

Statement by Conferee Lea

Meanwhile, on the House side, Conferee Lea, chairman of the House committee on interstate and foreign commerce, followed through with a statement arguing in support of his previously-expressed view that the Panama Canal Act modification makes no change as to the water service to which the prohibition and the power of the commission apply. The Lea statement, inserted in the appendix to the August 27 issue of the Congressional Record, reads as follows:

The Panama Canal Act, enacted August 24, 1912, preceding the opening of the Canal, contained provisions against destruction of water competition by competing rail carriers. These provisions amended section 5 of the Interstate Commerce Act and are carried in the present law as paragraphs 19, 20, and 21 of section 5.

In substance, these paragraphs provide:

First—An absolute prohibition against railroads having any interest in competing water carriers operating through the Panama Canal; and

Second—A qualified prohibition against railroads dominating competing water carriers other than through the Panama Canal.

The law leaves it to the Commission to determine the facts as to whether or not such competition does or may exist.

Applications to the Commission are authorized for an order permitting (a) the continuance of vessels already in operation, or (b) the installation of new service.

If the Commission is of the opinion that the water service, other than through the Canal is operated (a) in the interest of the public, and (b) is an advantage to the convenience and commerce of the people, and (c) that the extension will not exclude, prevent, or reduce competition on the route by water, the Commission may extend the time for operation of such services.

If such service is extended, the rates of the water carrier must be filed with the Commission, and are subject to its regulation.

AMENDED PROVISIONS

These provisions, as amended by the conference agreement on S. 2009, are renumbered as paragraphs 14, 15, and 16 of section 5 of the Interstate Commerce Act.

Paragraph 14 strengthens the present prohibition by extending

it "to any person controlling, controlled by, or under common control with" a rail carrier.

Under the conference agreement, the absolute prohibition as to the Panama Canal remains as under the present law.

Under the conference agreement, the power of the Commission to permit the continuance or extension of service, or the acquisition of interests would be as follows:

First. The prohibition applying to water service elsewhere than through the Canal applies where the railroad "does or may compete for traffic."

Second. The Commission has power after hearing to determine the facts as to competition or possibility of competition.

Third. The Commission, after hearing, has authority to authorize a railroad to continue to hold an interest or to acquire an interest in a competing water carrier, or to install new water service if the Commission finds that the continuance or acquisition of such ownership, or interest, or the installation of such service will not prevent the water carrier from being operated (a) in the interest of the public, and (b) with advantage to the convenience and commerce of the people, and (c) that it will not exclude, prevent, or reduce competition on the water route.

It will be noted that on the enactment of the conference agreement into law, all but exempted water carriers will come under the regulation of the Commission as to rates without an order such as these paragraphs authorize.

The effect of the conference provisions is to clarify existing law. The changes made are in line with the actual operation of existing law since its enactment, and with the interpretations heretofore placed upon it by the Interstate Commerce Commission. See *Steamship "Great Northern"* (37 I. C. C. 260); *Ashtabula-Port Maitland Car-Ferry Service* (40 I. C. C. 143); *Southern Pacific Company's Ownership of Atlantic Steamship Lines* (77 I. C. C. 124); *Investigation of Seatrail Lines, Inc.* (206 I. C. C. 328). These interpretations of the Interstate Commerce Commission have not been reversed by the courts.

The administrative interpretation of these provisions is controlling unless overturned by the courts. The courts will not disturb such interpretations except for cogent reasons. See *McLaren v. Fleischer* (256 U. S. 477); *St. Paul M. & M. R. Co. v. Phelps* (137 U. S. 528).

The provisions of the present paragraphs contain ambiguities and uncertainty of language which, it is believed, are substantially clarified by the provisions of the conference agreement.

It will be noted that the power of the Commission to extend service elsewhere than through the Panama Canal remains as under existing law. The standards that are to control the determination of the Commission are the same in every case.

The standards under which new service is permitted are the same as applied to the continuance of existing service. The Commission has authority to make an order to install new service under the existing provisions. The extension of service under the conference substitute does not go beyond the present law as previously interpreted.

The existing service referred to, of course, applies to service existing at the time the order is made and not at the time of the enactment of the original act. There was no such service at that time, as the canal was not open.

Whether it be the continuance of existing service, an extension of service, the installation of new service, or the acquisition of new interests in water carriers the Commission has the same duty to determine the facts necessary for the protection of the public before the order of approval is made. In each case the dominating consideration is the protection of the public against the destruction of water competition by rail carriers. The provisions are logical, just, and equally applicable to their fundamental purpose.

The conference agreement makes no change as to the water service to which the prohibition and the power of the Commission apply.

The power to protect the public against the destruction of water competition by the rails under this law is dependent upon the action of the Commission. In a long course of years, during which the Commission has exercised that power, there is no known case in which it is claimed an abuse of such authority has been charged.

Reheat Control for Air Conditioning

TESTS were recently conducted on a southern railroad to determine the feasibility and effectiveness of reheat control for warm weather air conditioning. This is one of several methods now being tried to improve upon the cycling method of control.

When air conditioning was first applied to railway passenger cars, the cooling effect was an improvement on comfort which was generally acclaimed by passengers. Now it is accepted more as a matter of course and the traveling public has become more critical.

One feature of the usual method of control which railroads have sought to improve upon is the on-and-off type of operation controlled by thermostat. Circulation of air through the car is continuous but cooling is intermittent. While cooling is in progress, the air in the car is also dehumidified. When the cooling stops, the moisture on the coils is picked up and added to the air and the relative humidity rises. During this part of the cycle, the passenger perspires slightly and when cooling begins again the drier air evaporates the perspiration. This causes the passenger to think the car is drafty, although the rate of movement of the air has been constant.

When reheat control is employed the compressor operates continuously, and a small amount of steam is added to the overhead heat radiators by means of a modulated or throttling control. Because the compressor operates continuously a maximum reduction of relative humidity is effected, and since the control is modulated there is no cycling.

During the test, continuous records of temperature and humidity were obtained. The temperature was controlled at 75 deg. F. and the relative humidity was maintained between 45 and 55 per cent. A relative humidity of 50 per cent and a temperature of 75 deg. produces a 70-deg. effective temperature which is well within the comfort zone.

A second car on the same train was equipped with cycling control and records were made of temperature and humidity. The dry bulb temperature was held close to 74 deg. F. and the relative humidity varied from 65 to 87 per cent. When the relative humidity was between 70 and 87 per cent, the effective temperature was entirely outside of the recognized zone of passenger comfort.

Reheat control is suggested as being particularly effective in climates subject to high relative humidity. During the tests the compressor in the reheat control car operated continuously while that in the adjoining car was cycling 1½ min. on and 1½ min. off. Steam for reheating was available at all times, since it was required for the diner and tavern car on the train. The amount of steam required is negligible. No additional equipment is needed, the same overhead heat valve for winter-time heat control being used for reheat control. The cooling thermostat is used as a low limit control; it is selected for 1 deg. below the operating temperature of the reheat valve, so when there is no steam available for reheat, the car is controlled by the conventional cooling control.

A detailed report of the tests appears in the September, 1940, issue of *Railway Electrical Engineer*.

INCREASING POPULARITY of the "East Wind," de luxe all-coach train between Washington, D. C., and Maine and New Hampshire resorts, has necessitated the addition of another reclining seat coach from New York northward. This addition makes the "East Wind" an eight-car train and marks the second time since its inauguration last spring that it has been necessary to add equipment to the train.

New Books...

Who's Who in Railroading in North America. 716 pages. 8¾ in. by 5¾ in. Bound in cloth. Published by the Simmons-Boardman Publishing Corporation, New York. Price \$7.50.

The 1940 edition of "Who's Who in Railroading" is off the presses, the last previous edition of this standard reference work having appeared in 1930. After such an interval the work naturally embodies a multitude of changes, but, more than that, it has been made considerably more comprehensive—the new edition giving biographical sketches of 5,300 leaders in the field, as compared with some 3,800 contained in the previous edition. When the 1930 edition was brought out it was the intention to publish revised editions at intervals of about three years, but the economic depression made such a program impossible. Hence this new edition "takes up the slack" after a decade of such manifold changes as to make it virtually a complete new work.

Not railroad officers alone are comprehended in the biographical data appearing in this work, but the leaders also in the equipment and supply companies, railroad labor leaders, state and federal regulatory authorities, transportation economists, specialists in railway finance, educators, I. C. C. practitioners, consultants, authors, editors and other experts. Naturally, the inclusion of persons outside of railroad personnel proper brought with it a difficult task of selection, requiring a wide knowledge of the field. To accomplish this and capitalize on the experience of a large group of observers, the combined staffs of the five Simmons-Boardman railroad periodicals were consulted for recommendations and, in the case of highly-specialized groups, outside authorities were asked for suggestions.

The 1940 edition also carries on the policy initiated in 1930 of "personalizing" the biographical sketches by the addition of family data, social, political and religious affiliations, etc., to the more formal career statements.

"Who's Who in Railroading" is a lineal descendant of the well-known "Biographical Directory of Railway Officials of America," the first edition of which appeared in 1885. Subsequent editions were published in 1887, 1893, 1896, 1901, 1906, 1913 and 1922.

Universal Directory of Railway Officials and Railway Year Book, compiled from official sources under the direction of the Editor of the *Railway Gazette*. 605 pages. 8½ in. by 5½ in. Bound in cloth. Published by the Directory Publishing Company Limited, 33 Tothill Street, Westminster, S. W. 1, London, England. Price 20 shillings (approx. \$4.00).

The 1940-1941 edition marks the 46th year of publication of the *Universal Directory of Railway Officials*, which contains within the scope of 600 condensed pages comprehensive lists of officers and particulars of individual railroads throughout the world. The edition preserves the familiar geographical basis, except that advantage has been taken to arrange the roads of the European countries in strictly alphabetical order, regardless of relative importance or size. As usual information has been arranged so as to group all the railroads in Great Britain, the British Colonial Empire, and the British Dominions in sequence, followed by the railroads of foreign countries in which important British interests are held, and lastly, the roads of other foreign countries.

The compilers point out that hostilities in Europe made it impossible for information to be obtained direct from certain sources this year but that they have been successful in securing up-to-date details of most of the world's railroads "to an extent that was not thought practicable in the early stages of preparation." The present volume also contains information formerly carried by the *Railway Year Book*, presenting statistical and other information on railway operations during the summer of 1939. This is of permanent value as a reference source inasmuch as widespread destruction of railroad properties and extensive changes in ownership have since occurred which may make the status of at least the European railroad systems substantially different in the future.

NEWS

Would Let O. C. Junk Some Lines

Examiner would permit abandonment of "Boston Group" which piles up heavy deficits

Interstate Commerce Commission approval of the abandonment of the Old Colony's so-called Boston group lines has been recommended by Examiner W. J. Schutrumpf in a proposed report on applications filed in that connection by the joint trustees of the O. C. and the New York, New Haven & Hartford. The proposed abandonment involves some 97 miles of line which are said to account for about 75 per cent of Old Colony operating deficits totaling about \$10,000,000 for the approximately five years in which the New Haven has operated the O. C., i. e., since the disaffirmance of its lease of that road.

Recognizing that the losses have been the result of passenger operations, Examiner Schutrumpf at the same time notes that the I. C. C. is without authority to order the discontinuance of specific services; its role is to pass upon proposed abandonments of lines. Thus he would have the commission permit the complete abandonment, basing its conclusions "on the net effect of all operations." He adds that "as the service now rendered cannot be continued except by, in effect, confiscating the Old Colony's properties, the commission cannot do otherwise than permit the proposed abandonment." Mr. Schutrumpf would, however, have the applications thus approved only upon condition that within 60 days of the date of such approval the trustees of the Old Colony "shall sell all or any part or parts of the lines permitted to be abandoned to any person, firm, or corporation offering to purchase same for continued operation in freight service and willing to pay therefor not less than the fair net salvage value thereof."

The background of this proceeding (docketed as Finance Docket No. 12614) was given in the *Railway Age* of March 16, page 522, where Boston, Mass., hearings on the applications were covered. As there pointed out the case involves the country's first complete abandonment of an entire group of metropolitan steam railroad lines which have lost out because of the inroads of highway competition. Briefly, the O. C. lines involved comprise what is known as the via Atlantic route (as distinguished from the Back Bay route). They are: Boston-Braintree; Braintree-Greenbush; Braintree-Plymouth;

Braintree-Middleboro. The so-called Western and Cape Cod lines of the O. C. are not affected.

Among the evidence reviewed in the proposed report was a contention that abandonment of the lines serving the Fore River shipyard and the Hingham ammunition depot would interfere with the national defense program. The examiner conceded that such situations might arise, but he did not think they should preclude favorable action on the applications. In setting forth his conclusions, Mr. Schutrumpf said in part:

"The Boston group lines have been operated at substantial losses. Future operations with the present service will result in similar deficits. It is apparent that in the past such losses have been, and in the future will be, the result of operations in passenger service. If the passenger service were eliminated, freight operation on the group as a whole, and operations on the remainder of the Old Colony lines, could be conducted at least without losses and probably at slight profits. Whether each segment of the lines can be operated in freight service with similar results cannot be determined from the present record in this case. The effect of the various contentions and suggestions of the protestants, is that any profits accruing from freight operation on the Boston group, from operations of the balance of the Old Colony lines, and even from New Haven lines, should be used to overcome deficits arising from commuter service. The Old Colony has been, and with future commuter service on the Boston group will continue to be, operated at substantial losses. It is not in a position to absorb them except by depletion of its physical assets, as evidenced by the orders of the court establishing a large proportion of the so-called administrative account charges as a lien prior to the lien on the mortgage securing the Old Colony's outstanding bonds."

W. L. Batt Appointed to National Defense Commission

William L. Batt, former president of S K F Industries, Inc., was appointed deputy commissioner of the Industrial Materials division of the National Defense Advisory Commission on August 22. Since the creation of the Commission, Mr. Batt has been serving as assistant to Edward R. Stettinius in co-ordinating the flow of mining and mineral products. Earlier in the year Mr. Batt had been appointed chairman of the Business Advisory Council of the United States Department of Commerce, in which post he succeeded W. Averell Harriman, chairman of the board, Union Pacific.

RRs Carry 33,000 to Democ. Party

C. N. J. and P. R. R. take equal of two army divisions to Sea Girt for Governor's Day

A total of 33,000 loyal New Jersey Democrats were carried on 45 special trains from home points to and from Sea Girt, N. J., on Saturday, August 24, by the Central of New Jersey and the Pennsylvania to participate in Frank Hague's (mayor of Jersey City and Democratic "boss" of the state) monster Governor's Day celebration at the site of the state chieftain's summer "White House." The total movement was about equal to that of two full army divisions at the present authorized strength of 18,000 per division, without impedimenta, with the important difference that the passengers were not organized or under discipline. In addition the traffic was handled over a seashore line which boasts one of the largest passenger volumes in the country on summer week-ends and originated largely on main-line terminal districts in the congested North Jersey area.

Sea Girt is located along the New Jersey seashore resort district on the New York & Long Branch, some 57 mi. from Jersey City (New York). Operated on a 50-50 basis by the Central of New Jersey and the Pennsylvania, the Long Branch road connects with its owning roads at Perth Amboy, about 22 mi. from Jersey City and extends south to Bay Head junction, 38 mi. At the latter point a line of the P. R. R. extends south to Barnegat Bay and across to Camden, while at Sea Girt another P. R. R. single track line runs west to the New York-Philadelphia main line at Monmouth junction. The Long Branch is two-tracked for its entire length and equipped with searchlight, color-aspect block signals and automatic train control designed to facilitate close interval operation. From Perth Amboy the Central extends north to a junction with its main line at Elizabethport and the Pennsylvania northwest to meet its main stem at Rahway.

Most of the special trains originated in Hudson, Essex and Union counties in heavy passenger traffic areas of the two railroads, which necessitated careful "sandwiching" in between regular runs. The Long Branch itself normally has 45 regular passenger trains scheduled southbound and 37 northbound on summer Saturdays, many of which run extra sections.

Special fares at drastic reductions were

sold for group purchase by the Democrats. These ranged in price from 75 cents to \$1, according to origin point, but averaged about .65 cents per mile. From Hudson county points a flat 75 cents was charged by the roads which was included in an "identification check" put out by the Democratic organizations for \$1.25, entitling the buyer to railroad transportation, a substantial box lunch and admission to the grounds.

To care for crowds at Sea Girt station inbound trains were spotted at two unloading points designated platforms A and B, located at the station and immediately north thereof, respectively. Outbound movements were handled from four locations, the P. R. R. departing from platforms A, B and C, and the Central from platform D. Railroad police in the number of 100 were assigned to the station area by the two roads.

Of the total the Central of New Jersey operated 11 trains each way—six from Newark and Jersey City, three from Bayonne and two from main line points Plainfield to Elizabeth—carrying about 8,000 passengers. The Pennsylvania operated 34 trains each way carrying approximately 25,000 passengers. Two of the latter trains were operated to Sea Girt from the Camden-Trenton area over the P. R. R.'s cross Jersey line and used the Long Branch only from Sea Girt junction to the station. Two additional trains carrying about 1,000 persons were operated in connection with the Erie from Paterson, with interchange at Marion (Jersey City). The remainder were loaded at Exchange Place terminal, Jersey City, and Newark.

No unusual movements in turning equipment were necessary as the Long Branch regularly loops trains on a special track at Bay Head, which operation was accorded the extra trains. All available sidings, however, were used to store equipment and the Pennsylvania used its line south of Bay Head, which is used infrequently, for the short storage period. Also the southbound N. Y. & L. B. track was taken out of service for 2.5 mi. between Bay Head and Sea Girt for storing Central cars.

To minimize delays on the line, which is characterized by a number of stations separated by very short distances, stops were eliminated on certain regular Long Branch runs and other trains turned around short of regular destination. The public notice summarizing the temporary service changes effective August 24 only indicated that a number of trains eliminated station stops between Long Branch and Asbury Park and were turned around short of Bay Head. Buses secured from the local Coast Cities Transit Company were chartered to make the local stops thus eliminated. Other trains were given special departure times with a "subject to delay" clause.

U. S. Equipment Exports Up 173 P. C. Over 1939

Total United States exports of railroad equipment, including rolling stock and parts and miscellaneous equipment such as signals, totaled \$10,416,980 in the first six months of this year, a 173 per cent increase

Would Have House Probe Postponement of Oil Suit

Inspired by the Department of Justice's recent decision to meet the request of the National Defense Advisory Commission and thereby postpone temporarily a contemplated anti-trust suit against 22 major oil companies and their affiliates, Representative Coffee, Democrat of Washington, has introduced House Resolution 575, calling for a select-House-committee investigation into the interference by any federal agency, official or employee with the enforcement of the anti-trust laws, particularly with reference to the petroleum industry.

As noted in the *Railway Age* of August 17, page 261, the suit contemplated by the Department of Justice would seek to force the oil companies to divest themselves of certain types of properties, such as pipe lines and tankers and marketing facilities, i. e., to divorce the production of oil from its transportation and marketing.

as compared with \$3,809,744 worth exported during the corresponding period of 1939, according to the Bureau of Foreign & Domestic Commerce. Outstanding shipments during June included six steam passenger cars to Portugal, valued at \$277,741, and 150 freight cars, valued at \$328,937, to Brazil. During the same month a total of 43 freight cars, valued at \$102,000, were shipped to Mexico.

Benefit Association Head Dies

William B. Montgomery, president of the Benefit Association of Railway Employees and publisher of the *Railway Employees Journal*, Chicago, died in Kenilworth, Ill., on August 25 after a long illness. He was born in 1869, and in 1912, with others, founded the association. He served as a director until 1933 when he became president.

S. P. Inaugurates "Corpus Christi Overnight"

The Southern Pacific has inaugurated the "Corpus Christi Overnight" as an addition to its fleet of fast freight trains. The new train provides overnight service between Houston, Tex., and Corpus Christi, with departure at 8 p. m. and arrival at 6:30 a. m. The train also delivers package cars at Beeville and Sinton.

Former Chief of Locomotive Inspection Dies at 76

Alonzo Pack, who was chief inspector, Bureau of Locomotive Inspection, Interstate Commerce Commission, between 1918 and 1935, died at Denver, Col., on August 14, at the age of 76. He entered railroad service as a boilermaker in 1882 and between 1887 and 1893 served as locomotive fireman. Between 1893 and 1911 he was employed as a locomotive engineer. In 1911 he entered the service of the Interstate Commerce Commission bureau as

district supervisor. In 1914 Mr. Pack was appointed assistant chief inspector of the bureau, and July, 1918, became chief inspector. He retired from service on July 31, 1935, being succeeded by John M. Hall.

House Committee Approves Prior Service Records Resolution

The House committee on interstate commerce has reported favorably the Senate-approved Senate Joint Resolution 267, which would authorize the Railroad Retirement Board to pay railroads for the work of bringing up to date the service records of prospective applicants for annuities under the Railroad Retirement Act.

More Time for Compiling Rate and Classification Data

The Interstate Commerce Commission, Division 2, has further postponed from September 1 until October 1 the deadline for the furnishing of that information regarding shipments made on certain days which has been called for in connection with the Nos. 28300 and 28310 investigations of class rate structure and the consolidated freight classification.

Steel Corporation Sets December 31 As Limit for Present Prices

The Carnegie-Illinois Steel Corporation, a United States Steel subsidiary, announced on August 27 that its present base prices on hot rolled strip and standard rails and other products including bars, structural shapes, plates, steel sheet piling, hot and cold rolled sheets, as well as all other hot rolled alloy steel items excepting alloy plates, will continue in effect on shipments up to and including December 31, 1940, for domestic shipments and consumption. Present prices of \$3.275 per 100 lb. (Pittsburgh, Pa.) and \$3.28 (Chicago) will apply only on shipments made up to and including that date; any shipments thereafter will be billed on prices then in effect.

U. S. Railway Equipment Bureau Transferred

The United States Bureau of Foreign & Domestic Commerce announces that its Railway Equipment section, formerly a part of the Transportation division, has been transferred to the jurisdiction of the Motive Products division of the Bureau, effective August 14. This particular division also handles information with respect to automotive and aeronautics equipment.

Roads Discuss Coal Car Storage at Tidewater

Railroads which deliver coal at tidewater points on the Atlantic seaboard are currently holding meetings to discuss the possibility of restricting the storage of loaded coal cars both at mines and at tidewater yards for the purpose of insuring adequate and flexible car supply. At present consignees have five days in which to unload cars. If they unload before that period they receive credits which may be used to off-set debits accruing on other cars. A practice has arisen by which certain shippers buy and re-sell carloads "on paper" in order to trade credits against

debts. The Interstate Commerce Commission has for some time urged the carriers to establish demurrage rules which would prevent this practice.

A possible solution of the problem would be to place in effect a rule of "progressive indebtedness" which would place the burden of paying accrued storage charges on the final buyer of the car. As for the problem of "no-bill" cars at the mines, it has long been suggested that the roads establish a definite allowance restriction related directly to average daily output of each mine.

Freight Car Loading

Revenue freight car loading for the week ended August 24 totaled 761,002 cars, the Association of American Railroads announced on August 29. This was an increase of 17,881 cars, or 2.4 per cent, above the preceding week, an increase of 77,096 cars, or 11.3 per cent, above the corresponding week, last year, and an increase of 140,445 cars, or 22.6 per cent, above the comparable 1938 week.

As reported in last week's issue, loading of revenue freight for the week ended August 17 totaled 743,121 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading For Week Ended Saturday, August 17			
Districts	1940	1939	1938
Eastern	150,048	135,449	115,052
Allegheny	158,874	129,186	107,014
Pocahontas	50,844	48,134	43,986
Southern	97,270	92,156	89,758
Northwestern	132,692	116,503	94,286
Central Western	107,650	103,618	102,514
Southwestern	45,743	44,747	45,274
Total Western Districts	286,085	264,868	242,074
Total All Roads	743,121	669,793	597,884
Commodities			
Grain and grain products	43,348	43,965	45,775
Live stock	12,833	12,566	12,059
Coal	135,272	114,524	95,293
Coke	10,609	6,813	4,759
Forest products	36,355	31,371	30,031
Ore	69,206	48,004	24,962
Merchandise l.c.l.	149,891	153,373	149,306
Miscellaneous	285,607	259,177	235,699
August 17	743,121	669,793	597,884
August 10	726,976	661,023	589,568
August 3	718,430	656,553	584,062
July 27	718,489	655,531	588,697
July 20	729,897	651,665	580,818

Cumulative Total,
33 Weeks ... 21,920,674 19,783,405 18,275,087

In Canada.—Car loadings for the week ended August 17 totaled 57,121, as compared with 52,317 in the previous week and 49,239 a year ago, according to the tabulation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Aug. 17, 1940	57,121	23,362
Aug. 10, 1940	52,317	22,383
Aug. 3, 1940	53,261	22,663
Aug. 19, 1939	49,230	17,831
Cumulative Totals for Canada:		
Aug. 17, 1940	1,683,557	803,752
Aug. 19, 1939	1,438,395	667,201
Aug. 20, 1938	1,445,675	666,621

North Western Employees Purchase Two "Iron Lungs"

Funds for the purchase of two respirators have been raised among employees of the Chicago & North Western by North Western Post No. 430 of the American Legion, which will present the "iron lungs" to the railroad at a public meeting in the

Trucks Ready to Issue Nationwide Publicity Blast

The nationwide advertising program of the organized trucking industry, the early rumblings of which were reported in the *Railway Age* of December 2, 1939, page 864, is now ready for shooting, according to an announcement from the American Trucking Associations, Inc. Final approval has been placed on plans to publicize the industry with a program eventually to include all media—magazines, newspapers and radio—as one phase of its enlarged public relations activities. A fund-raising campaign, seeking subscriptions from private as well as common and contract carriers, was initiated in November, 1939.

Action on the promotion project was taken at a meeting of a 25-man public relations committee at 30 Rockefeller Plaza, New York. Plans were made following a nationwide survey which, according to the Association's release, "disclosed that the many benefits of this highway transportation service are little known and slightly appreciated by the public."

The announcement stated that the advertising program will feature "the many advantages of truck service, not only to the public but also to the government in the present emergency." The account has been placed with the Biow Company, Inc., 9 Rockefeller Plaza, New York City.

Chicago passenger terminal on September 5. The machines will be available to all employees and their families and all communities served by the railroad.

M. P.'s Third Streamliner to be Called Dixie Eagle

The Dixie Eagle is the name selected for the Diesel-electric streamlined train which the Missouri Pacific will place in service early next year between Tallulah, La., and Memphis, Tenn. In a naming contest, 313 employees submitted 117 possible names. Dixie Eagle was suggested by 28 persons. The new train will be similar to the Eagles now operating between St. Louis, Mo., and Omaha, Neb. It will make a round trip daily, with stops at McGehee, Helena, Marianna and other points.

Susquehanna Family Have Themselves a Picnic

General Manager A. L. Kline of the 146-mi. New York, Susquehanna & Western recently "threw" an all-day Sunday picnic at Swartswood Lake, N. J., to which he invited all of the 500 employees of the road and their families. Almost 350 Susquehanna men—i. e., almost all of those who weren't working during the hours of the picnic—came with their lunch baskets and their families, the latter bringing the total attendance up to over 700.

Chairmen and other officers of the respective brotherhood organizations donated

their services for the day in operating the special eight-car train which covered all stations along the line to and from Swartswood junction. The 2½-mi. rail-less gap between the latter point and the picnic ground was traversed in buses and a maintenance truck of the road. Yardmaster William Wiarda, on his own account, had printed a folder commemorating the event in which he reproduced a score of group photographs of the picnickers which he snapped at random. Other items of interest are that the firemen beat the engineers in a tug-of-war and that a fireman took the prize in the spike-driving contest. Competing trackmen contend that he found a soft spot in the tie.

Labor Will Oppose Super Highways

The Railway Labor Executives' Association has voted to oppose attempts to link up super-highway projects with the national defense program. As noted in the *Railway Age* of August 24, page 294, a proposal in that connection was put forth by Senator Downey, Democrat of California, in the form of an amendment to the conscription bill.

Congress Adopts Conference Report on Grade-Crossing Measure

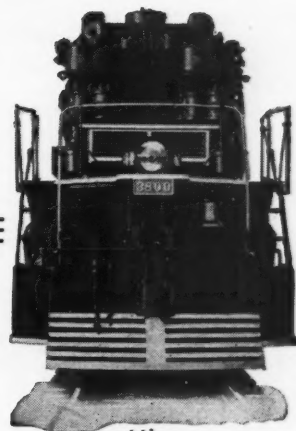
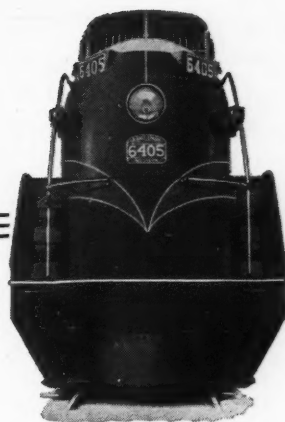
The Senate and House this week adopted the conference report on H. R. 9575, the federal-aid highway authorizations bill for the fiscal years ending June 30, 1942, and June 30, 1943. The compromise measure authorizes \$20,000,000 for grade-crossing elimination in each of the two fiscal years.

As passed by the House the grade-crossing authorizations were fixed at \$37,500,000 for each year; but the Senate substituted the \$20,000,000 figures which were accepted by the conferees.

Would Give Water Better Break on Joint-Rate Divisions

Examiner H. W. Archer has recommended in a proposed report that the Interstate Commerce Commission prescribe new bases for divisions of joint through rates applying in connection rail and water lines between the Southwest and Official territory. The recommended bases would produce divisions more favorable to the complaining water lines which operate between North Atlantic and Gulf of Mexico ports.

"As applied to complainants' traffic test," the proposed report said, "it is estimated that on rail-ocean-rail traffic, the water lines' revenue would be increased, under the foregoing findings, around \$500,000 a year, while the revenue of the Eastern (rail) carriers would be decreased a little less than that amount, and the revenue of the Southwestern lines would remain about the same after taking into consideration the disposition here recommended with respect to the loading and unloading charges at the Gulf ports. On northbound and southbound traffic interchanged only with the Eastern carriers, it is estimated that the basis here proposed would augment complainants' revenue around \$290,000 a year, and would, of course, decrease the Eastern lines' revenue by the same amount. These figures are, at best, mere estimates,



NEW LOCOMOTIVES

should receive first consideration in the
spending of the improvement dollar

because

1 "Operating Expense" is the largest item of the
railroad cost.

2 By hauling more tons faster, the new locomotive can produce the maximum return on the
invested dollar.

3 New power is the key to improved service.

To get the maximum return from your locomotive
dollar POWER WITH LIMA.

LIMA LOCOMOTIVE WORKS,



INCORPORATED, LIMA, OHIO

using data in complainants' traffic test as representing one-sixth of a year's business."

The proceeding is docketed as No. 27969, Agwilines, Inc. (Clyde-Mallory Lines), et al., v. Akron, Canton & Youngstown Railway Company, et al.

Deraiment of B. & O. Freight Train Kills Three of Crew

Deraiment of a 75-car fast freight train of the Baltimore & Ohio at Sykesville, Md., on August 26 caused the immediate death of the brakeman and fireman and seriously injured the engineer who died the following day. The train, identified as No. 94, a fast freight, was proceeding eastbound along the old main line between Point of Rocks and Baltimore when the locomotive derailed and plunged down the bank of the Patapsco river together with 23 cars. The cause of the deraiment has not yet been ascertained.

Train-Auto Service Popular

More than 15,000 persons have used the train-automobile service which 12 western railroads and Railway Extension, Inc., established at 100 cities in 30 states on May 1. In each month, the use of drive-your-self-automobiles has increased, June showing an increase of 58 per cent above May, July a 43 per cent advance above June and August 100 per cent above May. Approximately 65 per cent of the automobiles are used for business and 35 per cent for pleasure. Prior to the summer travel season, the percentage used by business was 80.

Bandits Hold Up N. Y. C. Mail Car

A mail car robbery in true Wild West fashion was staged by six armed bandits on the New York Central's main line at Marble Hill Station, upper Manhattan, New York, at 3 a. m. on August 23—a day late. The robbers were evidently seeking a mail pouch containing a \$115,000 payroll for a carpet manufacturing firm in Yonkers, New York, ten miles further up the line. Actually the payroll money had been received the day before and the bandits took in mistake a Yonkers mail bag containing ordinary first-class mail.

The train, an Albany-bound local, No. 199, left Grand Central Terminal at 1:40 a. m. (e. s. t.) and was making its regular stop at Marble Hill at 3 o'clock when several members of the band, armed with pistols and a sawed-off shotgun, forced the conductor and brakeman at the rear end of the train into the last car while the remainder boarded the mail car on a cleated plank, handcuffed the clerks and made off with a sack of Yonkers mail. One of the bandits, who was evidently familiar with railroad practice, pulled twice on the signal cord and the group jumped to the ground and made their getaway in an automobile parked nearby. The engineer, unaware of the holdup, proceeded and was halted only when the conductor signaled him to halt. The rear brakeman called the police immediately. New York Central police, the Post Office, and agents of the Federal Bureau of Investigation, who are working on the case, consider the automobile, which was identified by a passen-

Reductions in L. C. L. Ratings Won't Be Suspended

The Interstate Commerce Commission has voted not to suspend those tariffs wherein Southern railroads are proposing reductions in the L. C. L. classification ratings of some 4,000 items. The reductions, which are published to become effective September 1 and later, were outlined in the *Railway Age* of August 3, page 188. Meanwhile, however, the Commission will proceed to investigate the reduced rail ratings as well as competitive ones proposed in motor carrier tariffs which will not be suspended either.

ger on the train, as an important clue. As far as is known the pouch which the robbers carried off contained no valuable mail.

Quorum Hard to Get on House Unemployment Insurance Bills

Something in the nature of a "sit-down" strike appeared to be developing during the past two weeks among members of the House committee on interstate and foreign commerce with respect to pending bills to liberalize benefits under the Railroad Unemployment Insurance Act. The House committee has before it the Senate-approved bill, S. 3920, which embodies labor's plan for leaving the tax (paid entirely by the railroads) where it now is and increasing the benefits by about 115 per cent; the companion to this Senate bill (H. R. 9706) which was introduced by Representative Crosser, Democrat of Ohio; and H. R. 10082, introduced by Representative Reece, Republican of Tennessee, and embodying the railroad proposal for coupling a 25 per cent increase in benefits with a reduction in the tax.

Not enough members of the House committee to constitute a quorum appeared for an executive meeting scheduled for August 22 to consider the unemployment insurance bills and "stop gap" regulation of forwarders. Other executive sessions were then scheduled for August 27 on the unemployment insurance bills and for August 28 on the forwarder bills. No quorum showed up for the former, but the forwarder-bill session drew the required number. Aside from the action on the forwarder bill (noted elsewhere in this issue), the committee at this August 28 meeting voted to schedule another executive session on August 29 for consideration of the unemployment insurance bills.

Coal Prices Postponed

The Bituminous Coal Division of the Department of Interior has postponed the effective date of minimum prices for the sale of bituminous coal from September 3, 1940, to October 1, 1940. The order of the Secretary of Interior, extending the date, was in response to complaints from members of the coal industry that the time which had been fixed for filing requests for review was inadequate. Pointing out that although the 10-day period originally

allowed for filing was not an unreasonable time, considering the opportunity which parties have had to become familiar with the issues involved, Secretary Ickes, in a memorandum accompanying his order, concluded that an extension of time would enable all interested parties to limit and clarify the issues involved in their separate contentions, thus facilitating an expeditious disposition of the issues.

The minimum prices and marketing rules will cover the sale at the mine of substantially all of the bituminous coal produced in the United States. The Coal Act provides for their establishment to stabilize the coal markets by maintaining a cost floor under prices at the mine and eliminating price-cutting and unfair trade practices. Coal producers, who as members of the Bituminous Coal Code, are participating in the market stabilization plan provided under the Coal Act, may not sell at prices lower than the established minimums without risking loss of code membership which would subject them to a 19½ per cent tax on the sale of their coal and possible suit for triple damages by injured code member competitors. Producers may sell at prices higher than the minimums, however.

July Truck Loadings Up 17.7 Per Cent Over Last Year

The volume of revenue freight transported by motor truck during July fell 1.8 per cent below that of June, but represented an increase of 17.7 per cent over the tonnage hauled in July, 1939, according to loading reports compiled by the American Trucking Associations.

Comparable reports were received from 216 motor carriers in 38 states and the District of Columbia. The reporting carriers transported an aggregate of 1,194,434 tons in July, as against 1,216,748 tons in June, and 1,014,493 tons in July of last year. The A. T. A. index figure, based on the 1936 monthly average tonnage of the reporting carriers as 100, stood at 133.75 for July; in June, the index figure was 137.79 and in July, 1939, it was 113.56.

Approximately 73 per cent of all the freight transported during the month was reported by carriers of "general merchandise." The volume of such traffic increased 1.1 per cent over June, and 16.3 per cent over July, 1939. Carriers in this group reported that their tonnage had been affected by labor difficulties during the month. Transporters of petroleum products, accounting for slightly more than 14 per cent of the total tonnage, reported a decrease of 5.9 per cent under June, but an increase of 12.4 per cent over July of last year. Movement of new automobiles and trucks declined seasonally, due to factory shut-downs during preparation for 1941 models. This tonnage, constituting 2.7 per cent of the total reported, decreased 45.7 per cent under June, but represented an increase of 1.6 per cent over movements of July, 1939. Iron and steel products represented 3.9 per cent of the total reported tonnage. The volume of these commodities increased 5 per cent over June and 42 per cent over July of last year. A little more than 5 per cent of the total tonnage reported was miscellaneous commodities, including tobacco, textile products,

CARLOADINGS ARE ALREADY UP!



Already the preliminary stages of the defense program have resulted in an increase in carloadings. When the program is under full swing the railroads will be faced with a hauling problem such as they have not faced in years. » » » The quickest and most economical means of meeting the demand of moving heavier loads at high speeds with your existing locomotives is . . . BOOSTER* POWER! The Locomotive

Booster, by capitalizing idle weight and spare steam, enables you to start heavier loads and keep them moving over the ruling grades. Increase the capacity of what already exists by adding the Booster.



*Trade Mark Registered United States Patent Office



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK
CHICAGO
MONTREAL

bottles, building materials, coal, cement and household goods. Transportation of these commodities increased 7 per cent over June and 57.9 per cent over July, 1939.

R. L. E. A. Opposes Draft; Hits "Sit Down" Strike by Industry

The Railway Labor Executives' Association, meeting in Washington, D. C., last week voiced its opposition to peacetime conscription at this time and voted to appoint a committee to get together with other organized labor groups "for the purpose of formulating a program intended to meet the menace of the sit-down strike now being carried on by big business against our government and the people of this nation in refusing to cooperate in the present vital defense program until they are guaranteed excessive profits."

This alleged "sit down" strike of business came up at President Roosevelt's August 27 press conference; and the President said he had been told by W. S. Knudsen and E. R. Stettinius, members of the National Defense Advisory Commission, that they had seen no evidence of dilatory tactics on the part of industry. Mr. Roosevelt thought that Messrs. Knudsen and Stettinius should be pretty well informed with respect to the matter. The President attributed any delay in connection with the defense program's production schedules to the failure of Congress to pass the pending tax and appropriation bills.

The aforementioned views of R. L. E. A. in opposition to conscription were set forth in a letter which R. L. E. A. Executive Secretary J. G. Luhrs sent on August 26 to Senator Johnson, Democrat of Colorado. Senator Johnson used the letter in debating the conscription bill on the following day. In another letter sent also on August 26 to Senator LaFollette, Progressive of Wisconsin, Mr. Luhrs set forth the R. L. E. A. action with respect to the appointment of the committee on industry's alleged "sit down" strike.

Troop Movements Delay Rutland Strike Vote

Balloting by employees of the Rutland to determine whether they will strike in opposition to a wage reduction of from 10 to 30 per cent on a sliding scale, scheduled by union officers for the week-end of August 24, has been postponed to the following Saturday or Monday because heavy troop movements out of the First Army maneuver area at Ogdensburg, N. Y., which the Rutland serves, gave train-service employees little opportunity to mark strike ballots. At the same time L. G. Morphy, receiver of the road, has given public notice that if a strike takes place, "operation of the road must cease."

The strike vote was determined upon under a resolution adopted on August 20 by the national officers of the 15 labor organizations or groups of units representing employees on the road, after the National Mediation Board had declared that further conferences were futile and both parties to the controversy refused arbitration. Under the Railway Labor Act, Receiver Morphy's wage reduction notice of December 9, 1938, becomes effective thirty days after termination of the services of the Mediation Board,

or September 12, unless an emergency board is created by the President. Ballots will be placed in the hands of all 1,598 employees of the road, whether union members or not (the normal personnel of the road has been approximately 1,300 for the past few years, but has increased during the summer due to increased traffic).

In connection with the strike vote Mr. Morphy has issued a public notice to employees and others dated August 26 in which he states flatly that "in case a strike takes place, the operation of the road must cease." He points out that he cannot operate the line on the basis of present wages; that since his appointment revenues have not been sufficient to pay expenses and taxes and that "the continued operation of the railroad has been possible only because part of the wages have not been paid by reason of court orders which have now been set aside."

The notice also referred to the inability of the receiver to pay immediately the sum of \$344,053 in back wages which the court has ordered him to repay. As of August 26, cash on hand in the road's working fund was only \$285,157. The notice continues with the statement that the receiver recognizes his obligation to pay past due wages as soon as possible but that "he cannot apply all the money on hand for that purpose without discontinuing operation of the road." It reads further, however, that wages due for July and August, 1939, amounting to \$63,749, can now be paid "without jeopardizing continued operation" and will be paid immediately.

Treize-Haden Report on Proposed Tariff Rules

On page 290 of last week's issue appeared a misleading heading on the news story reviewing a proposed report wherein Interstate Commerce Commission Examiners R. N. Treize and T. Leo Haden dealt with suspended schedules whereby Western railroads are undertaking to publish tariff rules which will meet the requirements of the commission's findings in the Freight Forwarding Investigation. Actually Messrs. Treize and Haden would have the commission approve about all the railroads want with respect to the rules in issue; and thus, contrary to what the erroneous heading indicated, the examiners did not look with disfavor upon the practices involved.

The proposed report embraced three proceedings, involving in all the five proposed tariff rules which are mentioned below—the practices which the rules are designed to cover having been explained in last week's item. The first of the three proceedings involved the "marriage rule," the "flying trapeze rule," and the "follow-lot rule." The practices proposed to be covered by these rules had grown up on an "informal" basis, and the rules are designed to supply the necessary tariff authority, thereby meeting the requirement of that finding in the Freight Forwarding Investigation which held that the practices were unlawful in that they were without tariff authority. The second proceeding involved the so-called "excess rule," designed to permit new practices in connection with the loading of multiple-car shipments; and the third proceeding dealt with

a proposed amendment to "safeguard" the already-existing "two-for-one rule," applicable when cars are furnished at variance with shippers' orders. While proposing this "safeguarded" "two-for-one rule" to comply with a finding of the Freight Forwarding Investigation, the railroads nevertheless opposed it, preferring to leave the "two-for-one rule" as it now is.

In the latter connection the examiners recommend the finding sought by the railroads. Also, they recommend approval of the proposed "flying trapeze rule," the "follow-lot rule," and the "excess rule." With respect to the "marriage rule," they recommend disapproval of the language proposed in the suspended tariff. At the same time, however, they would have the commission approve a substitute set forth in clearer language and submitted at the hearings, where the railroads did not undertake to defend the "marriage rule" as originally framed but stated their desire to establish the substitute. Thus if the commission follows the Treize-Haden recommendations the railroads will get all they want out of these proceedings.

House Committee Approves "Stop Gap" Forwarder Bill

The Interstate Commerce Commission on August 29 made public orders further postponing from September 1 until October 31 the effective date of its outstanding orders which require the discontinuance of joint-rate arrangements between forwarders and motor carriers.

With an amendment which would permit railroads, express companies and water carriers subject to the Interstate Commerce Act to engage in freight forwarding operations "without making application for or obtaining a certificate," the House committee on interstate and foreign commerce on August 28 ordered a favorable report on H. R. 10398, a bill providing for "stop gap" regulation of forwarders which was introduced by Chairman Lea a few days earlier. Like the previous "stop gap" bills for which it is a substitute, H. R. 10398 would apply various sections of the Motor Carrier Act to forwarders and thereby authorize their filing with the Interstate Commerce Commission of those tariffs naming joint rates with motor carriers which the commission has ordered stricken from its files by September 1.

In the latter connection the forwarders would require another respite from the commission in the form of a postponement of the September 1 deadline; the "stop gap" bill could not be enacted in time to provide for an unbroken continuance of the joint arrangements with truckers.

When it inserted the aforementioned provision with respect to railroad operations of forwarding services, the committee struck out a provision which had stipulated that nothing in the bill should be construed to grant forwarders the right to establish joint rates with railroads, express companies or water carriers. As now written the "stop gap" legislation provided in the bill would cease to be effective on August 1, 1941, the theory being that by then Congress will have had time



DELICATE ARCH

UTAH

One of the more beautiful natural arches that are to be found throughout the United States is the Delicate Arch of Arches National Monument, Utah. This arch which measures 27 ft. at the base, stands at a height of 43 ft. from the center of the base to the inside top of curve. The columns or buttresses of this arch vary in thickness from 3 ft. to 9 ft., and in width from 6 ft. to 16 ft.

While the Security Sectional Arch lacks the natural beauty of the Delicate Arch, it serves a much more practical purpose. Ever since its introduction 31 years ago, by The American Arch Company, it has been constantly improved to keep pace with modern railroading and today it is standard on American Railroads. Maintain a *complete* arch and obtain to the fullest the value of your fuel dollar.

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Specialists***

to consider an act upon more comprehensive and permanent legislation for regulation of forwarders. Another provision would exempt from suspension at the hands of the I. C. C. initial forwarder tariffs filed or adopted on or before October 15, 1940; while another would relieve forwarders from criminal liability "on account of any act done or omitted to be done prior to the date of enactment of this act."

Want Trainload Rate on Coal

Charging that present rates are unreasonable, unjust and excessive, several Michigan paper mills have filed with the Interstate Commerce Commission a complaint in which they ask for trainload rates on bituminous coal from mines in Pennsylvania, the Virginias, Kentucky, Tennessee and Ohio to Kalamazoo and other paper-making points in Michigan. The complaint is docketed as No. 28530, Allied Paper Mills, et al. v. Chesapeake & Ohio Railway Co., et al.

Profs Discuss War Transport at Chicago Round Table

The pros and cons of the usefulness of various agencies of transportation in moving military traffic were discussed, among other factors in national defense, at a "round table" discussion held recently at the Illinois Institute of Technology (formerly Armour Institute) in Chicago during which a group of selected newspapermen asked questions of a panel of experts from visiting professors giving a post-graduate course in defense problems to key men in industry.

In the course of the discussion mention was made of the inadequacy of present highways for heavy military movements,

inability of the railroads to handle large tanks and railroads versus Panama Canal for movement of heavy equipment to the Pacific Coast. Also a "petroleum expert" pointed with admiration to the new military "autobahnen" highways of Germany.

The participating professors included L. E. Grinter, vice-president, Illinois Institute; G. B. Karelitz, Columbia University, expert on bearings and lubrication; W. L. Everitt, Ohio State University, authority on radio and communications; L. S. Jacobsen, Stanford University, earthquake specialist; V. I. Komarevsky, research professor of chemistry, Illinois Institute, petroleum expert; C. C. Furnas, Yale University, author and chemical engineer; and R. H. Manley, assistant director of the Armour Research Foundation. The interrogating journalists were: Reginald Sweetland, Chicago Daily News; Lotte Stovall, Chicago Daily Times; H. Handleman, International News Service; Tom Morrow, Chicago Tribune; Keith Fanshier and E. G. Nichols of the Chicago Journal of Commerce; and Elgar Brown, Chicago Herald-American. The portion of the round-table talk referring to transportation was reported as follows:

GRINTER: In such prosaic things as streets and highways, there is probably a large amount of work that must be done. We have millions of dollars worth of highways that would be ruined by the movement of heavy trucks. When 20- to 30-ton trucks are moving under their own power, it is very doubtful whether our ordinary highways will stand the punishment.

SWEETLAND: Would you say that the present highway system of this country is inadequate for the existing type of warfare?

KARELITZ: I understand that few highways can stand the tonnage of the largest tanks. They will break under the load.

GRINTER: Under war conditions you might tear up the fences, but you can't do that now.

FURNAS: Is there any system set up for transporting trucks over rails?

GRINTER: This cannot be done in all instances. The Snow Cruiser would be no larger than a good-sized tank and it could not be taken on the

railroads. The big tanks are considered 25, 30 and 35 tons and larger.

SWEETLAND: Do you mean that railroads at the present time are inadequate for transporting modern war equipment?

KARELITZ: Most of the important material is being transported by rail. When I was in Washington recently, I saw trains loaded with war equipment returning from the war maneuvers. The small tanks were all splattered with mud.

BROWN: The big majority of the equipment is of such construction that it can be moved by rail. Even then, however, the highways are not built for that particular thing.

GRINTER: Neither are they built for the magnitude of heavy truck traffic as found in war.

BROWN: Transportation problems, in the case of a big tank, are important. Can't a great number of such tractors be constructed only in part so that they can be loaded on an ordinary freight flat-car and be reconstructed at the other end. Wouldn't that be an answer to the highway problem?

KOMAREVSKY: The roads in Germany are four-lanes and are practically all one-way traffic. No glare from cars coming in the opposite direction. And there are trees all along them to keep away the sun.

JACOBSEN: On the other hand, the highway system in this country is clearly equivalent to the highway system in Belgium. 90 per cent of the roads in Germany are highly inferior to the ones we have now. However, there are a few strategic roads which are very good.

GRINTER: Don't we have a greater problem because of the larger distances we must cover?

BROWN: That brings up the problem of the transportation of tanks the size of the Snow Cruiser. How would we get the tanks to the west coast? They would have to be assembled there. Or taken there by boat. Which would probably be just as quick as putting it on a flat-car and sending it to the west coast. You could probably do it in the same time.

EVERITT: That would be a strategic point.

Equipment and Supplies

LOCOMOTIVES

THE DULUTH, MISSABE & IRON RANGE has ordered 8 articulated type locomotives from the Baldwin Locomotive Works, having a total value of approximately \$2,000,000. Inquiry for this equipment was reported in the *Railway Age* of August 10.

THE ELGIN, JOLIET & EASTERN has ordered 15 Diesel-electric switching locomotives, placing two of 1,000 hp. and six of 600 hp. with the Electro-Motive Corporation; two of 1,000 hp. and two of 600 hp. with the American Locomotive Company; and three of 660 hp. with the Baldwin Locomotive Works.

FREIGHT CARS

THE UNION PACIFIC is inquiring for 2,000 underframes for box cars which it will build in its own shops.

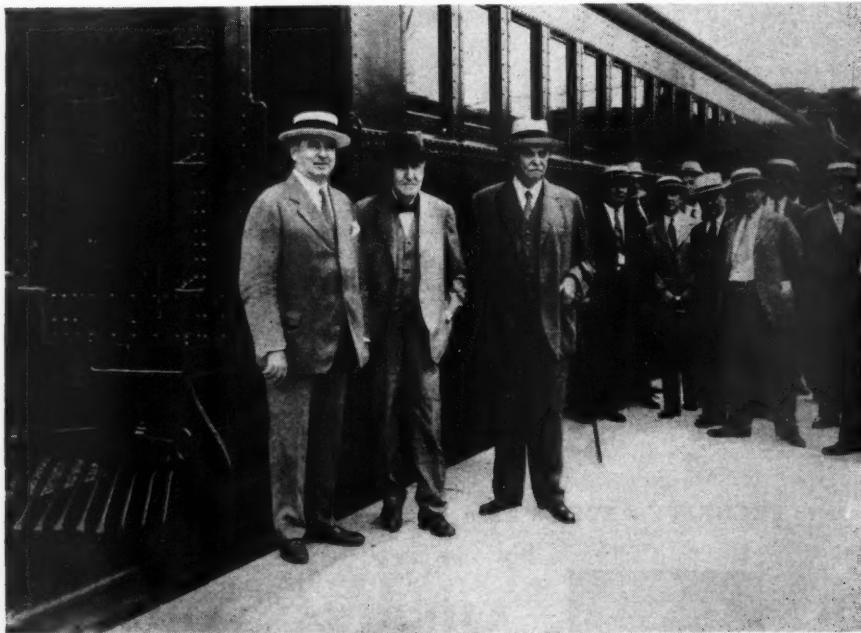
THE ERIE, on October 1, will begin the construction of 325 70-ton mill type gondola cars in its Dunmore shops.

THE DULUTH, MISSABE & IRON RANGE is inquiring for 100 50-ton gondola cars, 30 50-ton ballast cars and 10 70-ton hopper cars.

The Office of the CHIEF OF ENGINEERS, WAR DEPARTMENT, will open bids on September 5 for from 160 to 660 10,000-gal. gasoline tank cars.

THE CHICAGO, ROCK ISLAND & PACIFIC has ordered 800 box cars from the Pressed Steel Car Company. Inquiry for this equipment was reported in the *Railway Age* of August 24.

Continued on next left-hand page



Lackawanna Electrification 10 Years Old on September 3

The late Thomas A. Edison, on September 3, 1930, was at the controls of this multiple unit electric train on the inaugural run from Hoboken, N. J. to Montclair which officially opened the railroad's electrified suburban territory for service. This picture shows (left to right) President J. M. Davis, Mr. Edison, and the late W. H. Truesdale, then chairman of the board. In the background are important guests who participated in the run. A copy of this photograph was sent to Mr. Edison by Mr. Davis who signed the following statement, typewritten on the picture: "Dear Mr. Edison: This is the first electric train on the Lackawanna which you started and ran for half a mile through the tracks and switches of our terminal, observing the signals like the men whose duty it is to do this work daily."

From 8% to 12%
more boiler capacity
with



EXHAUST STEAM INJECTORS

Today, when industry is demanding maximum loads hauled at high speeds, locomotive boiler capacity is at a premium . . . Increase yours from 8% to 12% by installing *Elesco Exhaust Steam Injectors*. » » » Maintenance of the Exhaust Steam Injector is a negligible problem as there are no constantly moving parts to get out of order, as in other types of feedwater heaters. The success of this Elesco economy device is proved by the fact that to date there have been more than 20,000 installations of this type of injector. Increase *your* boiler capacity . . . install the Elesco Exhaust Steam Injector. More boiler hp. at the lowest cost.

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Supply Trade

J. G. Forster, vice-president of the Ogle Construction Company, Chicago, has also been elected vice-president in charge of sales of the **Union Railway Equipment Company**, Chicago.

Craig Johnston, acting traffic manager of **The Baldwin Locomotive Works** and its divisions, with headquarters at Edgely, Pa., has been appointed traffic manager, and **William J. Keeley**, who has been associated with Mr. Johnston for several years, has been appointed assistant traffic manager.

Elwood G. Stewart, who has been acting traffic manager of the **Lukens Steel Company**, Coatesville, Pa., since November, 1939, has been appointed traffic manager. He was born in New York in 1907 and was educated in the public schools of Atlantic City, N. J., and Camden, and in 1923 joined the accounting department of the Pennsylvania, where he remained until June, 1931, when he entered the traffic department of Lukens. Mr. Stewart was promoted to assistant traffic manager in May, 1935.

The Westinghouse Air Brake Company has announced three changes in shop management personnel. **H. L. Nicholson**, who has been with the company for 37 years and served as works manager since 1919, has been appointed director of factory operations. He is succeeded by **W. C. Landis**, who has been 25 years with the company and assistant works manager since 1930. **A. B. Fox**, with 35 years service and superintendent of the Traction Brake division since 1920, succeeds Mr. Landis as assistant works manager.

John E. Stapleton, assistant to the vice-president in charge of sales of the **Carnegie-Illinois Steel Corporation**, has been appointed assistant manager of

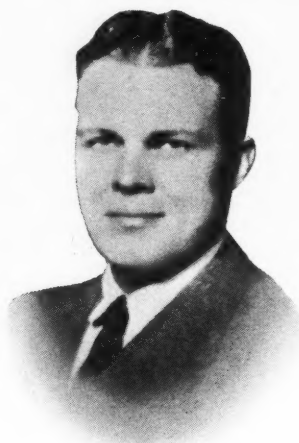


John E. Stapleton

sales for the New York district. Mr. Stapleton attended the University of Cincinnati (Ohio) and entered service with the Carnegie Steel Company in 1917. From 1921 to 1926 he served as a salesman in the Kentucky coal fields, and for the next

eight year period was resident salesman at Columbus, Ohio. He was resident salesman at Youngstown, Ohio, from 1934 to 1936, when he was appointed assistant to the manager of sales, with headquarters at Chicago. In February, 1938, he became assistant to the Carnegie-Illinois vice-president in charge of sales.

Robert G. Allen, whose election as president and a director of **The Duff-Norton Manufacturing Company**, Pittsburgh, Pa., was announced in the *Railway Age* of August 24, was born in Winches-



Robert G. Allen

ter, Mass., on August 24, 1902. He attended Phillips Academy, Andover, and Harvard University, majoring in economics, and taking post-graduate work at Harvard Business School. Upon completion of his college courses, Mr. Allen obtained a job with the Walworth Company in South Boston, Mass., entering the foundries as a laborer to learn this phase of the business. From that department, he went to the machine shops, and then up through the other divisions of the company. In 1927, he was sent to Columbus, Ohio, to represent the Walworth Company in the sales field, and two years later he was advanced to sales manager, with headquarters at Greensburg, Pa. In 1936, Mr. Allen resigned to become a candidate for Congress. He was elected and served in the National House of Representatives for four years, during which period he served as a member of the Foreign Affairs Committee. After his re-election in 1938, he notified his constituents that he would leave public life at the expiration of his term and on July 15, 1940, he was elected president of the Duff-Norton Manufacturing Company, Pittsburgh, and also of its subsidiary company, the Canadian Duff-Norton Company, Ltd., Coaticook, Que.

NEWS BULLETIN SERVICE on long-distance trains of Canadian National has been doubled in frequency in order to furnish travelers with up-to-the-minute news in view of rapidly-moving events abroad. Regular news bulletins have been posted on principal Canadian National trains morning and evening and now additional editions are posted in observation cars at noon and late evening.

Construction

CHICAGO & NORTH WESTERN.—A contract has been awarded the Ogle Construction Company for the construction of a 300-ton two-track reinforced concrete locomotive coaling station at Beverly, Iowa.

CHICAGO & WESTERN INDIANA.—A contract amounting to approximately \$100,000 has been awarded Colianni & Dire Co., Chicago, for clearing right of way, grading, drainage, street intersection work and fencing for the relocation of a track, which now bisects the Chicago airport. The new location will skirt the airport on the south. Other work to be done on this project will be performed by company forces.

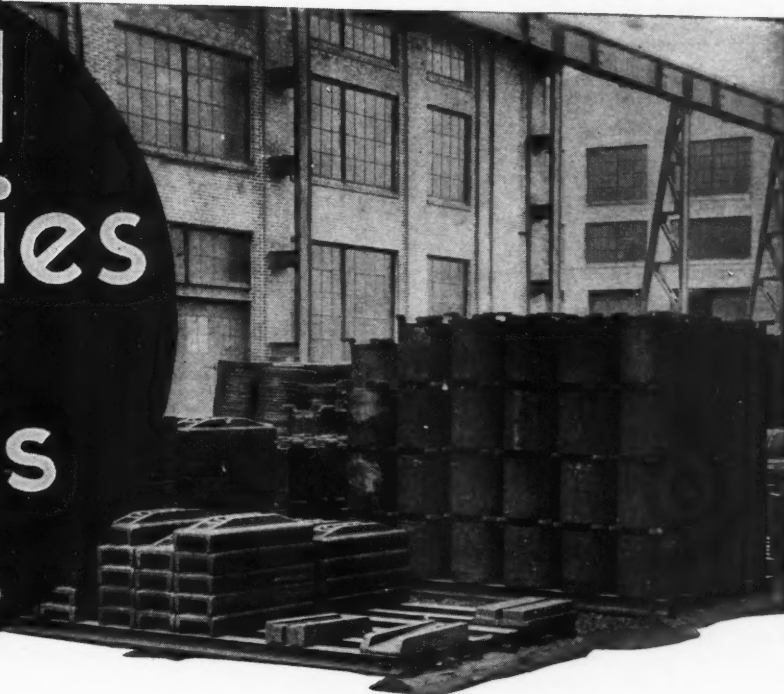
CHICAGO, ROCK ISLAND & PACIFIC.—F. K. Ketler, Chicago, has been awarded a contract amounting to approximately \$20,000 for the construction of a bridge consisting of eight 28-ft. I-beam spans on concrete piers, with a concrete-ballast deck, which will replace a pile trestle near Sparland, Ill.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract amounting to approximately \$53,000 has been awarded the Rady Coal & Construction Company, Chicago, for the construction of the substructure and the erection of the steel for a new four-track steel and concrete subway on Des Plaines street, Joliet, Ill. The bridge, which crosses over Des Plaines street on a skew, will consist of 51-ft. I-beam spans on reinforced concrete abutments with a concrete-ballast deck, and will provide a 30-ft. clear roadway and one 6-ft. walk beneath. It will replace four old through girder spans supported on masonry and falsework. The total cost of the project will be approximately \$85,000.

MICHIGAN CENTRAL.—A contract amounting to \$95,752 has been awarded the W. J. Storen Company, Detroit, Mich., by the Board of County Road Commissioners, Wayne County, Detroit, for the construction of a railroad grade separation bridge for four tracks of the Michigan Central over Military avenue in Dearborn, Mich. The contract includes the construction of temporary trestles for two tracks, the placing of 72 tons of reinforcing and 1,955 cu. yd. of concrete and the furnishing and erection of 305 tons of fabricated structural steel. The bridge will consist of two 46-ft. 3-in. half-through plate girder spans for four tracks, with a center pier, and a concrete deck. It will span two 30-ft. paving strips separated by a 6-ft. center island and flanked by a 10-ft. sidewalk on each side of the highway.

MISSOURI PACIFIC.—A new rest pier for the draw span of bridge No. 314 over White river two miles south of Newport, Ark., is being constructed at an estimated cost of \$79,400. The new pier will be constructed of reinforced concrete, extending 75 ft. below the base of rail and resting on 50 structural steel bearing piles, which are to be driven to a shale stratum 150 ft. below the base of rail. The north trestle approach of this bridge will also be rebuilt at an estimated cost of \$4,100.

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Financial

ATLANTIC COAST LINE.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume liability with respect to an \$8,150,000 issue of equipment trust certificates, series G, which it proposes to offer to competitive bidders. Each bidder will be invited to specify the price plus accrued dividends which he will pay and the rate of dividend (in multiples of one-eighth of one per cent) which the certificates should bear. The issue would mature \$815,000 on October 15 of each year from 1941 to 1950, inclusive.

ATLANTIC COAST LINE-LOUISVILLE & NASHVILLE.—Bonds of Carolina, Clinchfield & Ohio.—These two roads, lessees of the Clinchfield, have applied to the Interstate Commerce Commission for authority to assume liability under the terms of the lease for \$22,150,000 of first mortgage, four per cent bonds, series A, which the Clinchfield has applied for authority to issue. Proceeds of the issue, to be dated September 1, 1940, with a maturity date of September 1, 1965, would be applied to the redemption on or before December 15, 1940, of \$8,000,000 of the Clinchfield's first and consolidated mortgage six per cent bonds, dated December 15, 1922, and due December 15, 1952; and to the payment on or before January 15, 1941 of the Clinchfield's \$14,150,000 promissory note, held by the Reconstruction Finance Corporation. The new bonds would be redeemable on any interest date to and including September 1, 1945, at 107½ per cent of par; to September 1, 1950, at 106; to September 1, 1955, at 104½; to September 1, 1960, at 103; to September 1, 1963, at 101½; and thereafter to maturity at par.

BENNETTSVILLE & CHERAW.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon a 3.31-mile section of its main line between Blenheim Junction, S. C., and Drake.

BOSTON & MAINE.—Control of Lessor Companies.—The Interstate Commerce Commission, Division 4, has approved four applications of this road for authority to acquire control by purchase of capital stock of four New Hampshire short lines which have been leased by the B. & M. and operated as part of its system for many years. The lessor lines and their mileages, all in New Hampshire, are as follows: Pemigewasset Valley, 26.5 mi.; Peterborough, 11.5 mi.; Wilton, 18.8 mi.; Concord & Portsmouth, 51.4 mi. The transactions are calculated to effect a reduction in B. & M. rental payments as an additional means of reducing its fixed charges under the plan for readjusting its debt structure. The commission's approval of the application in each case was granted with the understanding "that before recording the acquisition of the stock on its books the applicant shall first submit the related journal entries for our approval."

CAROLINA, CLINCHFIELD & OHIO.—Bond Issue.—Morgan Stanley & Co., Inc., of

New York and associates offered on August 23 a new issue of \$22,150,000, first mortgage, 4 per cent, Series A bonds of the Carolina, Clinchfield & Ohio, due September 1, 1965. The issue was offered at a price of 102½ and accrued interest, to yield approximately 3.84 per cent. Principal, interest and sinking fund payments are unconditionally guaranteed by the Atlantic Coast Line and the Louisville & Nashville as lessees.

Proceeds from the sale, together with other funds to be provided by the A. C. L. and L. & N. will be used to retire on or before September 15 \$8,000,000 of first and consolidated mortgage 6 per cent bonds due 1952 and to pay not later than January 15, 1941, at face amount and accrued interest, a promissory note totaling \$14,150,000 carrying a 3 per cent interest rate and due May 27, 1943.

CENTRAL OF GEORGIA.—Trustee Appointments Approved by I. C. C.—The Interstate Commerce Commission, Division 4, has ratified the appointments of H. D. Pollard and A. B. Lovett as trustees of this road, which recently changed its reorganization proceeding from a receivership to a trusteeship. Mr. Pollard, president of the road, had served as receiver.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Abandonment.—This road has been authorized by the Interstate Commerce Commission, Division 4, to abandon the 23-mile section of its so-called Davenport-Monticello branch line between Dixon, Iowa, and Oxford Junction. The same report denies that part of the application seeking authority to abandon the 12-mile section between Dixon and Eldridge, such denial being without prejudice to renewal of the application after two years if it can then be shown "that the volume of traffic handled over that portion of the branch is insufficient to warrant continued operation." Meanwhile that phase of the application which sought authority to abandon the branch's 17-mile section between Wyoming and Monticello was dismissed at the applicant's request.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Equipment Trust Certificates.—The Interstate Commerce Commission, Division 4, has issued a third supplemental report in Finance Docket No. 10334, modifying previous orders in that proceeding to permit \$943,000 of this road's series-M equipment trust certificates and \$60,000 of series-N certificates to be modified by reducing the dividend rate from four per cent to 2½ per cent, by deleting the redemption provisions and the provisions for the issuance of definitive certificates in multiples of \$1,000, and by providing for the registration of the principal of the definitive certificates. The same report also authorizes trustees of the Milwaukee to assume liability with respect to the certificates thus modified. The certificates involved are the unmatured portions of issues originally sold to the Federal Emergency Administrator of Public Works and subsequently acquired by the Reconstruction Finance Corporation, which still holds them in temporary form. The R. F. C. has assented to the modifications which will be effective with respect to the series-

M certificates as of March 1, 1940, and with respect to the series-N certificates as of May 1, 1940.

CHICAGO, ROCK ISLAND & PACIFIC.—Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$2,472,000 of equipment trust certificates, series T. The application states that the applicant proposes to solicit competitive bids for the issue.

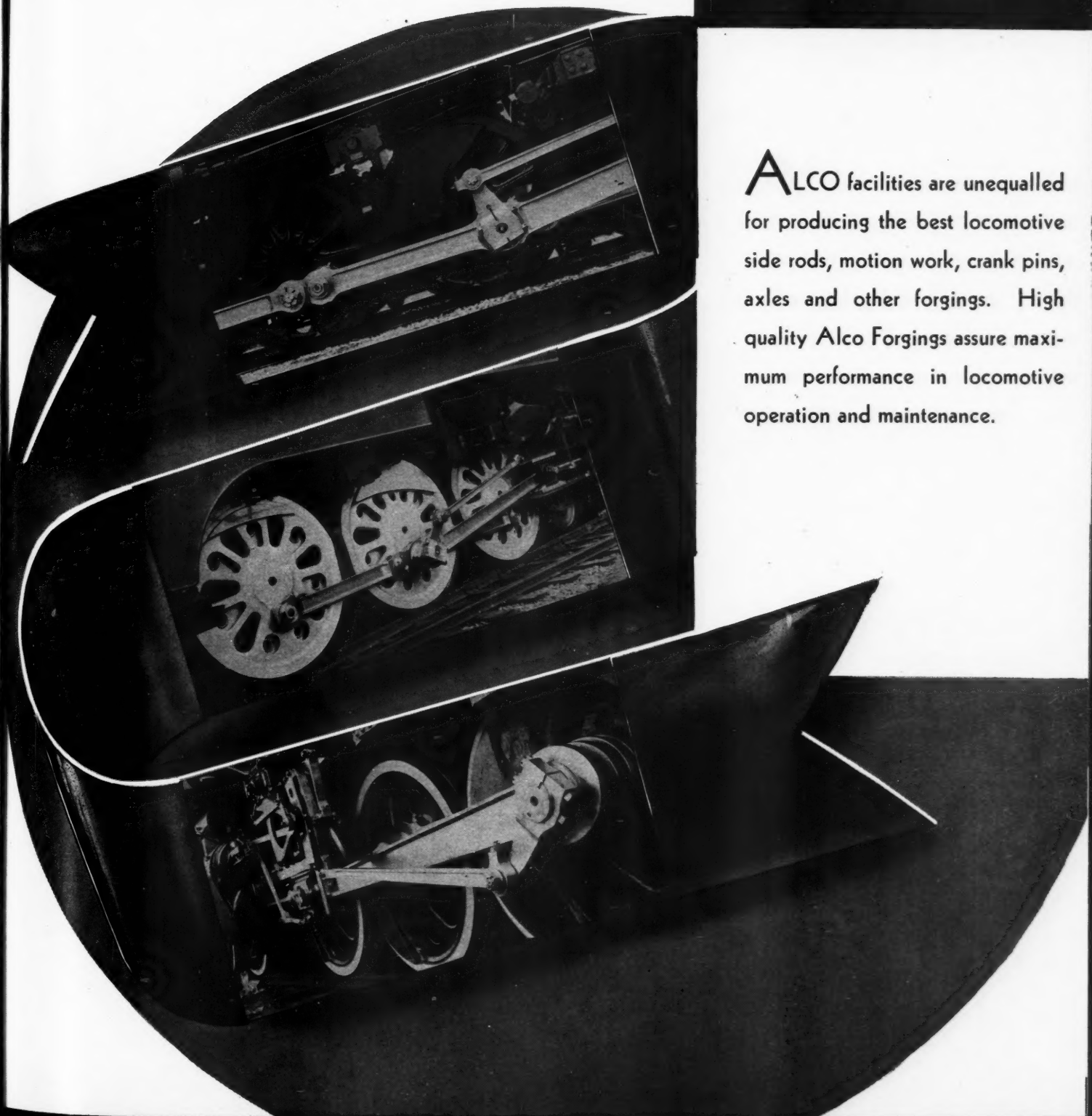
CINCINNATI & LAKE ERIE.—Merger of Affiliates.—The Cincinnati & Lake Erie Bus Company and the Cincinnati & Lake Erie Transportation Company have applied to the Interstate Commerce Commission for authority to consolidate into a new corporation to be known as the Cincinnati & Lake Erie Transportation Company; and for authority for the consolidated corporation to acquire and hold all of the stock of Hamilton City Lines, Inc., all stock and income bonds of Lima City Lines, Inc., and all stock to be issued by a proposed corporation which will own and operate the Dayton-Moraine street and suburban railway line. All of which would be as provided in the C. & L. E. plan of reorganization. Another application, also designed to give effect to the reorganization plan, seeks authority for the new C. & L. E. Transportation Company to issue 30,000 shares of stock, and authority for the C. & L. E. receivers, as voting trustees, to issue voting trust certificates representing such stock.

GULF, MOBILE & OHIO.—Mobile & Ohio Equipment Trust Certificates.—This road has applied to the Interstate Commerce Commission for authority to assume general obligation as lessee and guarantor with respect to \$2,700,000 of 2½ per cent Mobile & Ohio Railroad Company equipment-trust certificates of 1940, which the commission's Division 4 has already authorized the M. & O. receivers to issue and sell on a 2.49 per cent basis, or at 100.099 per cent of par and accrued dividends. The issue is to be sold to Salomon Brothers & Hutzler (acting on behalf of itself and Dick & Merle-Smith and Stroud & Company)—the sole bidder among 23 private banking and investment concerns to which invitations were sent. The certificates will mature in 15 equal annual installments of \$180,000 on August 1 of each of the years 1941 to 1955, inclusive.

RAILWAY EXPRESS AGENCY.—New Director.—L. R. Powell, co-receiver for the Seaboard Air Line, has been elected a director of the Agency, to succeed the late L. A. Downs, chairman of the board, Illinois Central, before his death on August 10.

RICHMOND, FREDERICKSBURG & POTOMAC-ATLANTIC COAST LINE.—Bonds of Richmond Terminal.—These two roads have been authorized by the Interstate Commerce Commission, Division 4, to assume liability as guarantors of \$3,150,000 of first-mortgage 3¾ per cent bonds which the same decision authorizes the Richmond Terminal Railway Company to issue and sell at 104 and accrued interest. The proceeds will apply to the redemption of \$3-

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233,000 of outstanding first mortgage 30-year 5 per cent gold bonds, which will be called on or about October 1 for redemption on January 1, 1941. "As a result of negotiations," the Terminal Company has agreed to sell the bonds at the aforementioned price of 104 (approximately a 3.14 per cent basis) to Morgan Stanley & Company and Kuhn, Loeb & Company. The refinancing is expected to result in net savings of \$712,227.50, as computed to the January 1, 1952, maturity date of the bonds to be redeemed.

RIO GRANDE SOUTHERN.—Receiver's Certificate.—The Interstate Commerce Commission, Division 4, has dismissed, at the applicant's request, the application filed August 28, 1939, by the receiver of this road for authority to issue a \$50,000 4 per cent receiver's certificate.

SOUTHERN PACIFIC.—Equipment Trust Issue.—Halsey, Stuart & Co., New York, and associates, have been awarded an \$11,820,000 issue of 2¼ per cent serial equipment trust certificates of this road on a bid of 96.77, or at an interest cost of approximately 2.7. The certificates will cover about 90 per cent the cost of new rolling stock which has been reported as ordered in recent issues of the *Railway Age*.

SOUTHERN PACIFIC.—Abandonment.—Examiner J. S. Prichard has recommended in a proposed report that the Interstate Commerce Commission approve the application of the Interurban Electric for authority to abandon operation of its entire 40-mile system which furnishes service in and between San Francisco, Calif., on the West side of San Francisco Bay, and Oakland, Berkeley, Alameda and other places on the East side of the bay. The proposal also contemplates abandonment of some 19 miles of track (included in the aforementioned 40 miles operated by Interurban) owned by the Southern Pacific and the Central Pacific in Berkeley, Oakland and Alameda; and the examiner would permit such abandonments. The other lines over which Interurban would abandon operation are those of the California Toll Bridge Authority, extending across the San Francisco-Oakland bridge. The Bridge Authority protested the abandonment, contending that Interurban was bound by contract to continue operations so long as any of the bridge bonds remained unpaid. "The power of Congress over interstate commerce," says Examiner Prichard with citations, "is unrestricted by the obligations of private contracts . . . Controversies pertaining to rights and obligations under private contracts are matters for determination by the courts."

Meanwhile the Interurban deficits which brought the abandonment application are attributed by the applicants "in large measure to the diversion of passenger traffic to private automobiles using the highway facilities afforded by the bridge. From time to time tolls for vehicular use of the bridge have been reduced from the initial rate of 65 cents to the present rate of 25 cents for each vehicle, without limit to the number of persons carried. The Bridge Authority has made no corresponding reduction in the tolls paid by the railroads

for the use of the rail transportation facilities afforded by the bridge, which are at the rate of 2½ cents for each passenger." Among the intervenors were representatives of organized railroad labor who sought "labor-protection" conditions. The examiner would reject that plea on the basis of commission findings in the same connection in previous abandonment cases.

Average Prices of Stocks and Bonds

	Aug 27	Last week	Last year
Average price of 20 representative railway stocks..	28.53	28.20	27.80
Average price of 20 representative railway bonds..	57.34	56.50	56.91

Dividends Declared

Alabama & Vicksburg.—Capital, \$3.00 semi-annually, payable October 1 to holders of record September 9.
Bangor & Aroostook.—Preferred, \$1.25, quarterly, payable October 1 to holders of record September 4.
Chesapeake & Ohio.—75¢; Preferred, \$1.00, quarterly, both payable October 1 to holders of record September 6.
Union Pacific.—\$1.50; Preferred, \$2.00, semi-annually, both payable October 1 to holders of record September 3.
Vicksburg, Shreveport & Pacific.—Common, \$2.50, semi-annually; Preferred, \$2.50, semi-annually, both payable October 1 to holders of record September 9.

Railway Officers

FINANCIAL, LEGAL AND ACCOUNTING

W. C. Logan, general auditor of the Fort Worth & Denver City and the Wichita Valley, has been promoted to secretary of those roads, and also to assistant secretary of the Burlington-Rock Island, with headquarters as before at Ft. Worth, Tex., succeeding **W. O. Hamilton**, deceased.

OPERATING

J. T. Stanford, assistant superintendent of the Illinois Central, with headquarters at Champaign, Ill., has been promoted to superintendent of the Illinois division with the same headquarters, to succeed **J. L. Downs**, retired.

TRAFFIC

B. C. Taylor has been appointed assistant general freight agent on the Southern Pacific at Portland, Ore., succeeding **W. H. Francis**.

John L. Bickley, passenger agent for the Grand Trunk Western and the Canadian National at Cincinnati, Ohio, has been promoted to assistant to the passenger traffic manager at Chicago, a newly created position.

N. P. Van Maren, traveling freight and passenger agent of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Mason City, Iowa, has been promoted to division freight and passenger agent, with the same headquarters, to succeed **W. F. Cody**, retired. **R. F. Kela-**

her, traveling freight agent at New York, has been promoted to general agent at Buffalo, N. Y., to succeed **R. F. Trumper**, retired.

W. M. Cramer, Jr. has been appointed assistant foreign freight agent of the Norfolk & Western, with headquarters at Norfolk, Va., succeeding **L. H. Butler**, whose promotion to foreign freight agent at Norfolk was announced in the *Railway Age* of July 27.

L. J. Smith, Jr., traffic agent for the Chicago Great Western at Los Angeles, Cal., has been promoted to general agent at that point, succeeding **F. P. Wagner**, whose promotion to traffic manager, with headquarters at Chicago, was announced in the *Railway Age* of August 24.

R. G. Hawkinson, whose promotion to freight traffic manager of the Chicago Great Western, with headquarters at Chicago, effective September 1, was announced in the *Railway Age* of August 24, was born in Chicago on January 8, 1898, and worked for a time for the Wells-Fargo Express Company. During the World War he served with the United States Marine Corps. On his return, he went with the Cornell Wood Products Company, Chicago, as assistant traffic manager and in June, 1921, he entered railway service as a rate clerk on the Chicago Great Western at Chicago, later being promoted to assistant chief clerk and chief clerk. On June 1, 1933, he was promoted to assistant general freight agent and on November 1, 1937, he was advanced to assistant to the traffic manager, the position he held until his recent promotion.

ENGINEERING AND SIGNALING

Harold S. Ashley, assistant division engineer on the Boston & Maine at Greenfield, Mass., has been appointed construction engineer in charge of the relocation of a section of the main line of the Fitchburg division between Royalston, Mass., and Baldwinville, necessitated by the construction of the Birch Hill dam and reservoir by the federal government. Mr. Ashley's headquarters will be at Baldwinville. **John F. Reilly**, track supervisor of District No. 2 of the Fitchburg division, with headquarters at Greenfield, has been appointed acting assistant division engineer at that point to replace Mr. Ashley.

MECHANICAL

L. W. Downey, supervisor of automotive equipment of the Chicago Rock Island & Pacific, in charge of the maintenance of Diesel engines, has been granted a leave of absence, effective September 1, to serve as engineer of maintenance of the Diesel section of the Bureau of Ships of the U. S. Navy.

OBITUARY

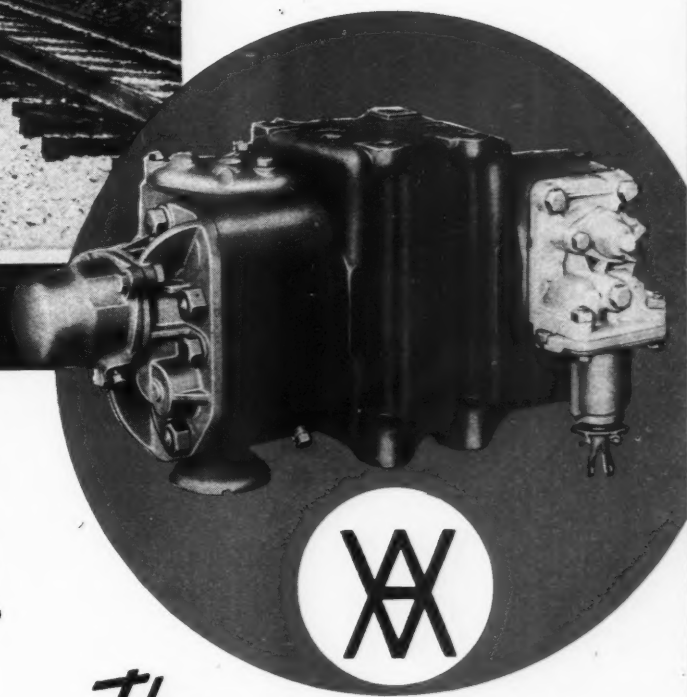
I. C. Hicks, who retired in 1937 as mechanical superintendent on the Eastern lines of the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., died on August 26 at Chicago. Mr. Hicks had been ill for some time.

For Economical
FREIGHT HAULING



TRACK and ROADWAY

AN important factor in the successful operation of modern freight trains is good track and roadway ★ The amount of money invested in physical facilities of railroads in America has increased 68 per cent during the last two decades, and a greater amount is being spent from year to year to maintain track stability and good riding qualities by means of heavier rails, secure fastenings, better ties, deep ballast, and drained road bed. During this year maintenance budgets will be increased on an average of 17 per cent over those of 1939 ★ To secure the maximum benefit from improvements in track structure, cars must be equipped with the AB Brake. It alone provides adequate control for movements of large volume traffic in heavy high speed trains. » » » »



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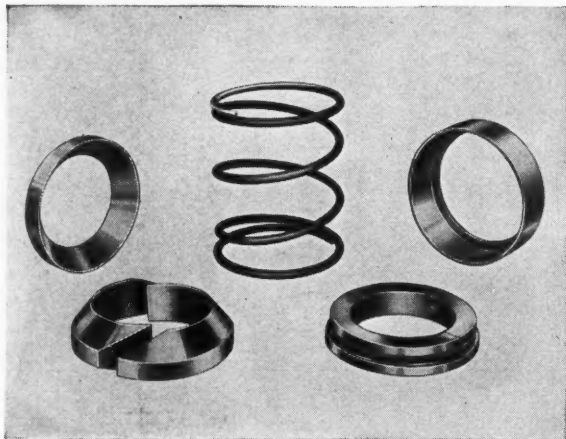
Freight Operating Statistics of Large Steam Railways—Selected Items for the Month of June.

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Number of road locomotives on line					
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross, excluding locomotives and tenders	Net, revenue and non-revenue	Serviceable		Un-serviceable	Per cent un-serviceable		
									Not stored	Stored				
New England Region:														
Boston & Albany	1940	362	125,439	129,799	9,180	2,868	65.4	162,284	56,142	59	2	25	29.1	
1939		374	117,457	122,112	8,637	2,639	64.6	150,368	51,649	57	5	26	29.5	
Boston & Maine	1940	1,892	270,723	306,255	24,322	9,554	68.6	541,890	205,269	116	..	63	35.2	
1939		1,915	252,255	278,742	22,230	8,770	67.2	490,996	177,006	119	3	58	32.2	
N. Y., New Hav. & Hartf.	1940	1,842	336,666	420,959	27,087	12,091	65.6	676,421	249,936	177	12	61	24.7	
1939		1,840	330,746	410,736	28,597	11,382	64.0	629,753	219,044	187	..	78	34.6	
Great Lakes Region:														
Delaware & Hudson	1940	846	234,829	311,691	34,296	8,283	63.9	522,183	248,136	133	39	70	28.9	
1939		830	205,014	265,128	26,909	6,906	64.5	422,947	194,687	115	58	70	28.8	
Del., Lack. & Western	1940	983	346,119	388,190	51,895	12,624	67.4	750,716	302,490	138	5	60	29.6	
1939		983	321,797	356,583	47,170	11,126	68.8	637,694	247,673	129	5	77	36.5	
Erie (incl. Chi. & Erie)	1940	2,268	662,780	702,308	50,782	29,624	66.3	1,814,144	678,097	216	27	184	43.1	
1939		2,290	605,475	646,269	39,992	26,412	66.1	1,594,708	574,017	211	38	221	47.0	
Grand Trunk Western	1940	1,023	217,677	219,882	1,258	6,861	62.4	419,018	145,374	73	5	21	21.2	
1939		1,023	224,206	224,758	1,316	6,104	62.4	370,026	121,792	63	9	32	30.8	
Lehigh Valley	1940	1,252	327,179	359,663	54,183	12,999	65.5	829,859	356,289	128	8	85	38.5	
1939		1,265	282,897	308,390	42,934	11,033	65.5	677,930	274,788	121	..	113	48.3	
New York Central	1940	10,565	2,569,236	2,758,833	181,292	89,118	60.7	6,039,953	2,563,353	830	171	386	27.8	
1939		10,613	2,283,699	2,401,820	138,397	75,383	60.0	5,039,308	2,049,444	785	200	434	30.6	
N. Y., Chicago & St. Louis	1940	1,672	496,382	502,904	6,536	18,318	63.5	1,114,961	404,719	159	17	22	11.1	
1939		1,672	457,519	462,303	5,315	16,599	63.6	991,242	349,874	147	8	43	29.7	
Pere Marquette	1940	2,080	325,324	334,226	7,100	9,091	61.2	583,112	217,163	109	4	40	26.1	
1939		2,081	316,194	321,616	5,478	8,090	60.8	521,236	192,610	105	8	47	29.4	
Pittsburgh & Lake Erie	1940	233	80,015	82,778	....	3,486	63.4	301,250	176,515	35	18	18	25.4
1939		233	61,135	62,526	....	2,776	62.6	237,215	136,598	30	7	37	50.0
Wabash	1940	2,397	541,005	553,141	11,021	17,426	63.9	1,044,918	356,363	139	16	111	41.7	
1939		2,397	529,235	538,340	11,090	16,339	63.9	966,622	313,276	136	10	129	46.9	
Central Eastern Region:														
Baltimore & Ohio	1940	6,261	1,516,558	1,899,945	212,879	50,116	61.6	3,519,540	1,597,038	672	94	425	35.7	
1939		6,278	1,328,018	1,643,188	163,149	41,942	61.7	2,889,776	1,271,225	617	118	477	39.4	
Central of New Jersey	1940	679	161,290	182,143	34,151	5,197	60.8	366,640	175,166	75	8	70	45.8	
1939		679	145,051	164,093	30,476	4,465	61.2	306,813	142,283	69	3	80	52.6	
Chicago & Eastern Illinois	1940	925	166,218	166,566	2,910	4,237	66.4	259,167	106,985	58	3	33	35.1	
1939		927	153,503	153,503	2,583	3,843	67.3	223,583	88,798	48	6	38	41.3	
Elgin, Joliet & Eastern	1940	390	97,215	98,724	1,222	2,502	60.0	192,461	94,620	53	..	24	31.2	
1939		390	82,824	83,803	1,609	1,986	59.1	149,202	69,494	51	8	24	28.9	
Long Island	1940	375	23,612	25,335	16,214	253	50.6	19,545	7,545	34	8	6	12.5	
1939		379	24,601	25,400	16,190	239	49.6	18,743	7,004	32	4	12	25.0	
Pennsylvania System	1940	9,983	2,998,058	3,631,141	428,064	116,997	61.1	8,151,731	3,617,215	1,301	143	790	35.4	
1939		9,967	2,559,792	3,078,488	353,526	97,178	61.6	6,492,937	2,725,017	1,163	79	1,058	46.0	
Reading	1940	1,442	401,397	446,205	54,290	12,049	61.5	877,852	430,510	211	13	150	40.1	
1939		1,443	364,916	401,106	46,403	10,225	60.0	742,176	348,701	193	9	168	45.4	
Pocahontas Region:														
Chesapeake & Ohio	1940	3,044	887,092	935,846	43,475	42,560	57.2	3,568,045	1,960,910	375	47	81	16.1	
1939		3,055	808,900	849,483	38,368	37,756	56.7	3,180,351	1,738,105	356	37	135	25.6	
Norfolk & Western	1940	2,169	646,803	673,410	34,971	29,890	58.0	2,486,234	1,303,879	282	46	24	6.8	
1939		2,169	610,448	638,824	32,805	26,708	59.1	2,166,388	1,138,819	266	62	35	9.6	
Southern Region:														
Atlantic Coast Line	1940	5,076	606,506	612,230	8,881	12,979	62.8	770,618	273,584	274	33	41	11.8	
1939		5,078	611,923	616,427	8,456	12,345	58.0	752,042	245,745	249	21	108	28.6	
Central of Georgia	1940	1,831	260,344	261,793	4,067	5,497	69.6	315,344	123,046	100	..	20	16.7	
1939		1,838	247,525	249,714	3,670	5,212	70.8	288,610	107,039	94	1	26	21.5	
Illinois Central (incl. Y. & M. V.)	1940	6,557	1,182,312	1,185,752	22,315	32,246	61.8	2,193,013	884,423	541	78	189	23.4	
1939		6,537	1,162,370	1,169,674	21,606	32,735	62.6	2,024,077	787,483	532	85	240	28.0	
Louisville & Nashville	1940	4,862	1,157,571	1,255,125	31,543	29,427	59.5	2,077,921	971,150	370	28	108	21.3	
1939		4,898	1,043,263	1,117,365	29,184	25,656	60.5	1,769,139	819,255	337	10	201	36.7	
Seaboard Air Line	1940	4,301	526,425	549,321	3,822	13,111	63.8	788,605	297,942	239	24	40	13.2	
1939		4,305	486,393	497,509	3,734	12,085	64.1	716,669	259,310	233	16	54	27.8	
Southern	1940	6,548	1,321,995	1,342,983	20,801	29,694	66.8	1,742,731	705,061	499	2	144	12.3	
1939		6,626	1,240,697	1,257,136	18,177	27,900	65.4	1,625,338	630,536	499	4	159	24.0	
Northwestern Region:														
Chicago & North Western	1940	8,319	805,355	837,946	15,324	24,923	63.5	1,594,216	598,152	290	45	271	44.7	
1939		8,326	778,718	797,966	18,603	22,763	65.9	1,393,368	534,930	301	78	279	42.4	
Chicago Great Western	1940	1,447	230,735	231,861	4,834	6,796	63.3	416,578	148,402	63	6	17	19.8	
1939		1,450	237,264	237,744	3,983	6,662	63.1	409,419	145,165	68	3	20	22.0	
Chi., Milw., St. P. & Pac.	1940	10,874	1,113,368	1,163,449	43,423	34,109	63.7	2,143,691	857,112	392	94	121	19.9	
1939		10,934	1,149,962	1,182,758	44,381	31,800	61.8	2,047,507	805,802	403	87	171	25.9	
Chi., St. P., Minneap. & Om.	1940	1,619	193,206	200,375	10,325	4,806	66.7	297,232	116,331	98	30	10	7.2	
1939		1,619	200,968	209,025	9,376	4,758	67.1	290,845	115,670	102	22	18	12.7	
Great Northern	1940	7,973	767,917	765,345	24,542	28,331	62.4	2,070,419	971,464	322	69	134	25.5	
1939		7,976	735,542	727,072	25,646	26,276	62.7	1,868,346	829,615	330	60	143	26.8	
Minneap., St. P. & S. St. M.	1940	4,261	366,275	369,434	2,973	8,960	65.5	542,736	229,752	112	..	18	13.8	
1939		4,265	347,052	351,970	3,442	8,309	66.6	484,554	197,258	107	..	31	22.5	
Northern Pacific	1940	6,423	669,690	709,861	41,825	22,988	65.9	1,438,196	567,881	308	45	89	20.1	
1939		6,422	645,120	678,783	35,228	21,715	66.7	1,371,540	569,924	311	22	107	24.3	
Central Western Region:														
Alton	1940	914	197,354	212,790	1,161	4,351	63.3	274,235	104,277	59	7	15	18.5	
1939		914	206,280	218,540	1,088	4,472	60.1	294,404	105,982	53	22	15	16.7	
Atch., Top. & S. Fe (incl. G.)	1940	13,414	2,022,406	2,194,422	117,281	60,104	60.5	4,007,352	1,305,673	671	41	143	16.7	
1939		13,447	1,954,406	2,130,341	113,328	57,289	60.9	3,776,554	1,227,276	653	33	224	24.6	
Chicago, Burl. & Quincy	1940	8,924												

1940, Compared with June, 1939, for Roads with Annual Operating Revenues Above \$25,000,000

Region, road, and year	Number of freight cars on line			Per cent un-service-able	Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders	Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1000 gross ton-miles, including locomotives and tenders	Loco-motive miles per locomotive-day	
	Home	Foreign	Total											
New England Region:														
Boston & Albany	1940	904	4,796	5,700	1.7	21,289	1,302	450	19.6	334	26.1	5,170	149	57.9
1939	1,124	3,867	4,991	3.0	20,370	1,291	443	19.6	344	27.2	4,603	152	53.5	
Boston & Maine	1940	5,259	7,886	13,145	6.0	28,389	2,007	760	21.5	538	36.5	3,616	91	67.3
1939	6,479	6,802	13,281	6.8	26,661	1,952	704	20.2	427	31.5	3,081	94	55.9	
N. Y., New Hav. & Hartf.	1940	6,316	11,876	18,192	4.1	29,859	2,042	755	20.7	461	34.0	4,523	98	66.5
1939	7,574	9,657	17,231	8.8	28,302	1,933	672	19.2	406	33.0	3,968	96	61.1	
Great Lakes Region:														
Delaware & Hudson	1940	8,428	3,934	12,362	4.0	34,219	2,237	1,063	30.0	676	35.3	9,777	106	50.5
1939	8,328	3,427	11,755	4.7	31,851	2,075	955	28.2	552	30.4	7,819	105	41.5	
Del., Lack. & Western	1940	10,641	5,874	16,515	6.5	38,817	2,192	883	24.0	598	37.0	10,257	118	75.5
1939	12,677	5,371	18,048	13.8	36,555	2,013	782	22.3	445	29.1	8,399	121	67.4	
Erie (incl. Chi. & Erie)	1940	15,046	13,485	28,531	3.7	47,668	2,761	1,032	22.9	783	51.6	9,966	87	64.9
1939	16,495	10,876	27,371	6.1	45,695	2,655	956	21.7	699	48.7	8,355	92	53.6	
Grand Trunk Western	1940	3,922	5,787	9,709	9.0	37,316	1,933	671	21.2	479	36.2	4,737	86	80.9
1939	4,309	4,664	8,973	12.0	34,022	1,657	545	20.0	427	34.3	3,968	87	79.7	
Lehigh Valley	1940	9,516	9,638	19,154	1.7	48,867	2,579	1,107	27.4	636	35.5	9,486	99	65.2
1939	10,023	7,262	17,285	2.3	44,662	2,426	984	24.9	512	31.4	7,241	108	54.5	
New York Central	1940	85,674	55,527	141,201	12.6	40,254	2,372	1,007	28.8	604	34.6	8,088	92	80.1
1939	90,403	60,093	150,496	19.1	38,087	2,226	905	27.2	464	28.5	6,437	94	67.2	
N. Y., Chicago & St. Louis	1940	6,015	8,020	14,035	4.0	42,347	2,250	817	22.1	961	68.5	8,069	81	92.0
1939	6,619	7,421	14,040	4.0	41,328	2,170	766	21.1	868	64.7	6,975	80	84.8	
Pere Marquette	1940	8,433	6,165	14,598	3.3	31,036	1,797	669	23.9	488	33.4	3,480	84	81.0
1939	9,456	5,533	14,989	5.7	29,304	1,654	611	23.8	425	29.4	3,085	89	74.7	
Pittsburgh & Lake Erie	1940	11,837	5,583	17,420	25.2	50,870	3,766	2,206	50.6	338	10.5	25,253	67	43.6
1939	9,408	8,163	17,571	37.7	51,805	3,880	2,234	49.2	252	8.2	19,542	81	30.7	
Wabash	1940	12,465	8,890	21,445	7.0	40,895	1,945	663	20.5	563	43.1	4,956	102	73.8
1939	13,294	8,548	21,842	11.1	38,476	1,844	597	19.2	473	38.6	4,357	106	70.2	
Central Eastern Region:														
Baltimore & Ohio	1940	56,271	26,999	83,270	10.4	32,506	2,354	1,068	31.9	647	32.9	8,503	125	62.5
1939	59,005	22,228	81,233	20.4	30,338	2,209	972	30.3	524	28.0	6,750	132	53.1	
Central of New Jersey	1940	9,019	10,910	19,929	21.9	30,144	2,403	1,148	33.7	291	14.2	8,599	121	61.4
1939	10,059	10,334	20,393	30.1	27,859	2,237	1,037	31.9	233	11.9	6,985	128	54.8	
Chicago & Eastern Illinois	1940	3,323	3,140	6,463	7.9	29,745	1,565	646	25.3	558	33.3	3,855	117	64.7
1939	3,503	2,827	6,330	6.0	27,781	1,461	580	23.1	468	30.1	3,193	116	59.3	
Elgin, Joliet & Eastern	1940	9,223	4,901	14,124	4.0	18,405	2,023	994	37.8	229	10.1	8,087	108	60.5
1939	8,394	2,872	11,266	5.0	17,611	1,846	860	35.0	207	10.0	5,940	108	48.0	
Long Island	1940	137	2,597	2,734	1.1	5,659	845	326	29.8	87	5.8	671	288	41.1
1939	291	2,861	3,152	5.6	5,678	790	295	29.3	69	4.7	616	274	42.8	
Pennsylvania System	1940	189,184	59,951	249,135	16.0	40,564	2,779	1,233	30.9	478	25.3	12,078	101	66.9
1939	201,677	48,885	250,562	23.3	39,557	2,579	1,082	28.0	364	21.1	9,113	110	55.7	
Reading	1940	23,062	11,255	34,317	17.6	28,770	2,194	1,076	35.7	417	19.0	9,952	127	52.4
1939	26,386	9,481	35,867	26.9	27,175	2,043	960	34.1	330	16.1	8,055	122	45.2	
Pocahontas Region:														
Chesapeake & Ohio	1940	45,041	14,854	59,895	1.9	59,932	4,068	2,236	46.1	1,081	41.0	21,473	64	70.8
1939	47,212	11,707	58,919	2.8	58,730	3,971	2,170	46.0	990	37.9	18,965	65	61.8	
Norfolk & Western	1940	36,566	6,067	42,633	3.9	60,701	3,893	2,041	43.6	1,024	40.5	20,038	81	72.5
1939	36,390	4,921	41,311	3.5	55,292	3,587	1,886	42.6	863	34.3	17,501	86	67.3	
Southern Region:														
Atlantic Coast Line	1940	13,405	6,172	19,577	18.4	23,172	1,274	452	21.1	442	33.4	1,797	107	65.6
1939	15,204	6,299	21,503	20.4	22,497	1,231	402	19.9	371	32.2	1,613	104	58.7	
Central of Georgia	1940	4,786	3,934	8,720	2.6	24,648	1,216	475	22.4	516	33.1	2,240	115	80.2
1939	4,955	3,460	8,415	1.5	23,011	1,169	434	20.5	428	29.5	1,941	115	76.7	
Illinois Central (incl. Y. & M. V.)	1940	29,617	14,207	43,824	3.7	31,726	1,874	756	25.8	647	40.6	4,496	115	53.4
1939	29,232	12,692	41,924	4.1	29,341	1,751	681	24.1	610	40.5	4,016	125	49.8	
Louisville & Nashville	1940	36,296	11,466	47,762	11.9	29,649	1,797	840	33.0	680	34.6	6,658	116	91.0
1939	40,035	8,141	48,176	21.1	28,012	1,699	787	31.9	543	28.1	5,575	110	74.2	
Seaboard Air Line	1940	11,220	5,988	17,208	4.3	27,064	1,521	575	22.7	573	39.6	2,309	113	66.7
1939	11,416	4,482	15,898	4.3	25,714	1,494	540	21.5	543	39.5	2,008	113	61.9	
Southern	1940	23,039	17,907	40,946	8.0	24,005	1,326	536	23.7	573	36.2	3,589	131	74.1
1939	23,399	16,255	39,654	11.3	23,722	1,316	511	22.6	528	35.7	3,172	130	67.4	
Northwestern Region:														
Chicago & North Western	1940	34,642	19,665	54,307	9.2	30,899	2,036	764	24.0	375	24.6	2,397	106	51.2
1939	37,028	17,591	54,619	9.7	29,322	1,852	711	23.5	326	21.0	2,142	106	45.2	
Chicago Great Western	1940	2,409	3,237	5,646	2.0	33,546	1,810	645	21.8	879	63.5	3,419	110	98.3
1939	2,359	3,247	5,606	1.4	31,866	1,731	614	21.8	886	64.5	3,337	115	95.3	
Chi., Milw., St. P. & Pac.	1940	43,007	18,062	61,069	2.7	32,046	1,935	774	25.1	469	29.3	2,627	109	72.6
1939	44,112	16,108	60,220	2.8	29,415	1,788	704	25.3	445	28.4	2,457	111	68.5	
Chi., St. P., Minneap. & Om.	1940	3,306	5,412	8,718	9.2	20,608	1,549	606	24.2	449	27.8	2,395	98	55.1
1939	3,562	5,033	8,595	9.5	19,628	1,451	577	24.3	428	26.2	2,382	96	55.9	
Great Northern	1940	33,874	9,116	42,990	7.4	42,628	2,711	1,272	34.3	752	35.1	4,061	85	54.2
1939	36,585	8,877	45,462	8.3	37,907	2,550	1,133	31.6	606	30.6	3,467	97	51.3	
Minneap., St. P. & S. St. M.	1940	12,296	4,281	16,577	4.0	25,658	1,485	629	25.6	472	28.1	1,797	93	95.0
1939	12,774	3,588	16,362	7.6	23,150	1,398	569	23.7	403	25.5	1,542	94	85.6	
Northern Pacific	1940	29,520	5,619	35,139	8.8	36,270	2,159	853	24.7	538	33.0	2,947	122	61.4
1939	30,970	5,581	36,551	11.4	33,663	2,139	889	26.2	526	30.1	2,958	123	58.7	
Central Western Region:														
Alton	1940	1,550	5,504	7,054	5.7	36,721	1,396	531	24.0	504	33.2	3,803	116	91.8
1939	1,772	5,787	7,559	13.2	35,535	1,441	519	23.7	468	32.9	3,865	117	86.1	
Atch., Top. & S. Fe (incl. G.	1940	71,334	12,809	84,143	8.5	39,517	1,987	647	21.7	512	39.0	3,245	109	96.1
1939	73,792	14,451	88,243	9.5	36,515	1,940	630	21.4	461	35.4	3,042	111	88.7	
Chicago, Burl. & Quincy	1940	27,579	15,560	43,139	7.10									

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